

08-11-06

Attorney's Docket No.: 18202-017001 / 1081
#OPE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Lin Zhi et al.

Art Unit : 1625

Patent No. : 7,026,484

Examiner : D. Margaret Seaman

Issue Date : April 11, 2006

Conf. No. : 7786

Serial No. : 10/080,926

Cust. No. : 20985

Filed : February 22, 2002

Title : TRICYCLIC ANDROGEN RECEPTOR MODULATOR COMPOUNDS AND METHODS

Attn: Certificate of Correction Branch

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

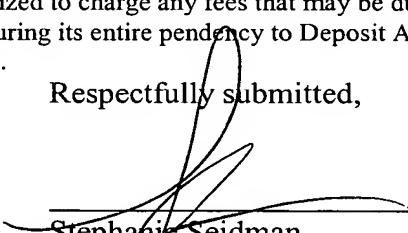
TRANSMITTAL LETTER

Dear Sir:

Transmitted herewith are a Request for a Certificate of Correction pursuant to C.F.R. § 1.322 & 1.323 (28 pages), Certificate of Correction Form PTO-1050 (26 pages), a copy of the Amendment and Response (31 pages) mailed on Sep. 15, 2005, a copy of the Preliminary Amendment (32 pages) mailed on Jan. 21, 2005, a copy of the Amendment and Response (35 pages) mailed on Nov. 17, 2003, and a return postcard for filing in connection with the above-identified application. One or more of the errors sought to be corrected were made by applicant, and a check for \$100 is enclosed to cover the required fee of 37 CFR §1.20(a).

The Commissioner is hereby authorized to charge any fees that may be due in connection with this paper or with this application during its entire pendency to Deposit Account No. 06-1050. A duplicate of this sheet is enclosed.

Respectfully submitted,


Stephanie Seidman
Reg. No. 33,779

Attorney Docket No. 18202-017001 / 1081

Address all correspondence to:

Stephanie Seidman

Fish & Richardson P.C.

12390 El Camino Real

San Diego, California 92130

Telephone: (858) 678-4777

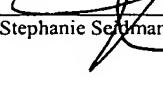
Facsimile: (202) 626-7796

email: seidman@fr.com

*Certificate
AUG 15 2006
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I hereby certify that this paper is being deposited with the United States Postal "Express Mail Post Office to Addressee" Service under 37 CFR §1.10 on the date indicated above and is addressed to: Commissioner for Patents, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA, 22313-1450.


Stephanie Seidman

AUG 15 2006



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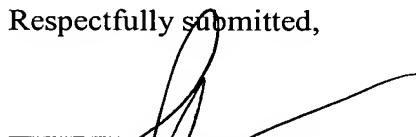
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Respectfully submitted,

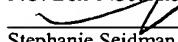

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Commissioner for Patents
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Alexandria, VA 22313-1450

REQUEST FOR CERTIFICATE OF CORRECTION

Dear Sir:

Pursuant to 37 C.F.R. 1.322, the patentee respectfully requests that a Certificate of Correction be issued for the above referenced patent to correct the following errors:

IN THE TITLE PAGES:

In Item [56] References Cited, in OTHER PUBLICATIONS:

in Yudin, please replace “Geterotsikicheskikh” with —Geterotsiklicheskikh—;

in the first Yamashkin et al., please replace “Chemistry.of” with —Chemistry of—;

in Edwards, J., et al., please replace “(1999)” with —(1998)—;

in Boyer, M., please replace

“<http://www.australianprescriber.com/magazines/vol19no1/ap19-1-11.htm>(accessed on Jan. 28, 2005.” with —<http://www.australianprescriber.com/magazines/vol19no1/ap19-1-11.htm> (accessed on Jan. 28, 2005).—; and

in Castillo, P., please replace “o-dihdroxyaromatic” with —o-dihydroxyaromatic—.

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Stephanie Seidman

AUG 15 2006

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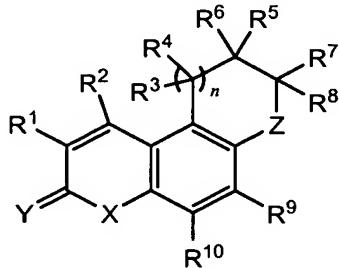


Applicant : Lin Zhi et al.
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 Serial No. : 10/080,926
 Filed : February 22, 2002
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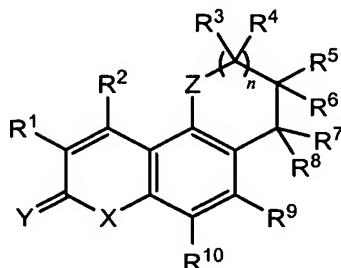
Attorney's Docket No.: 18202-017001 / 1081

IN THE SPECIFICATION:

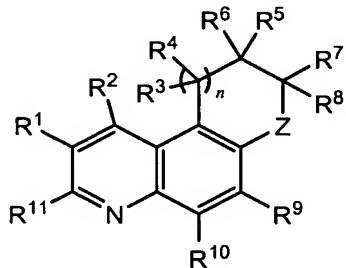
In column 2, beginning at line 7, please replace formulas I-VIII with:



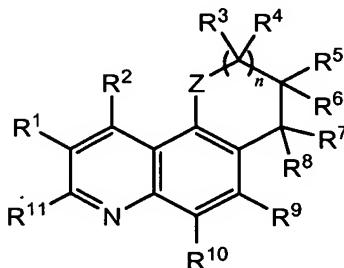
(I)



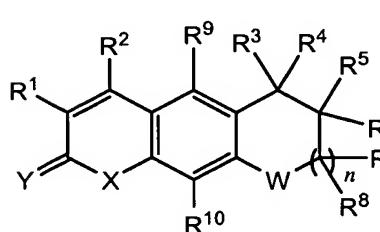
(II)



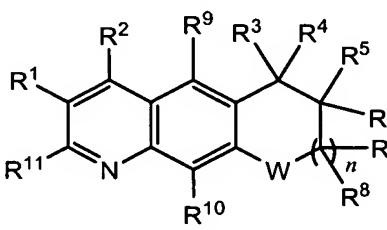
(III)



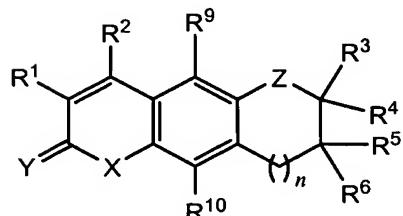
(IV)



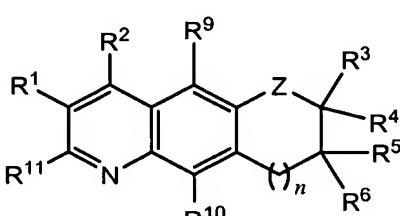
(V)



(VI)



(VII)



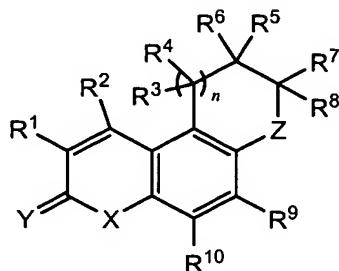
(VIII)

;

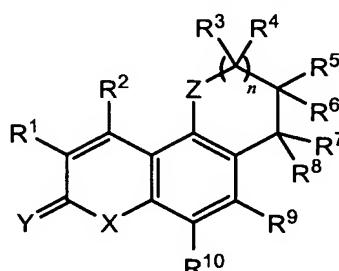
Applicant : Lin Zhi et al.
Patent No. : 7,026,484
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Serial No. : 10/080,926
Filed : February 22, 2002
Page : 3 of 28

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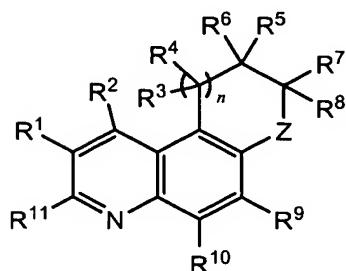
in column 7, beginning at line 15, please replace formulas I-VIII with:



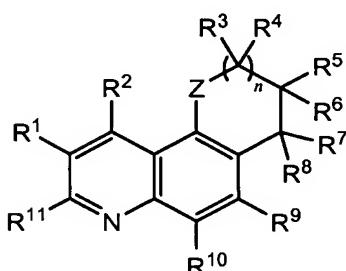
(I)



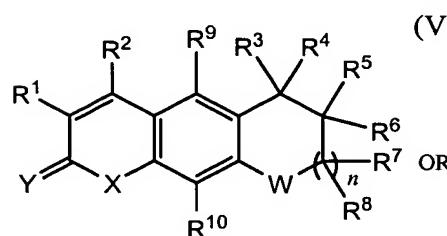
(II)



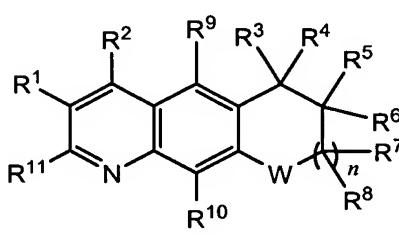
(III)



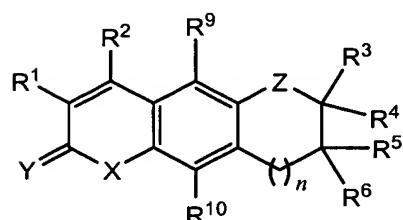
(IV)



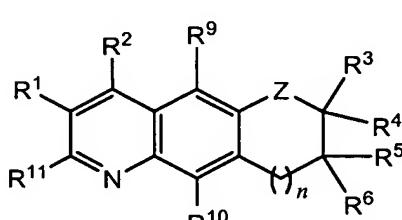
(V)



(VI)



(VII)



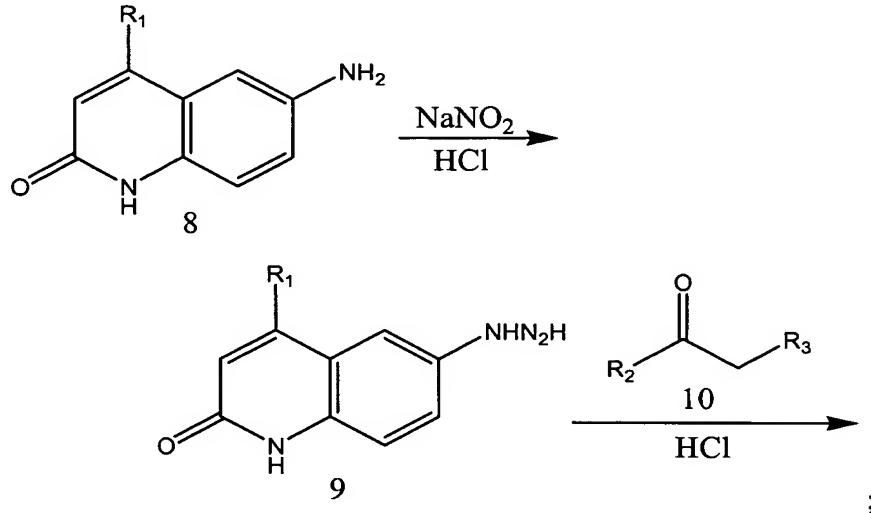
(VIII)

;

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in column 24, lines 53-67, please replace the structures in Scheme II with:



in column 57, lines 4-6, please replace

“(Compound 177, Structure 26 of Scheme IV, where R₂=methyl. R₃=2-hydroxyethyl”
with —(Compound 177, Structure 26 of Scheme IV, where R₂=methyl, R₃=2-
hydroxyethyl)—; and

in column 70, line 21, please replace “chloronation” with —chlorination—.

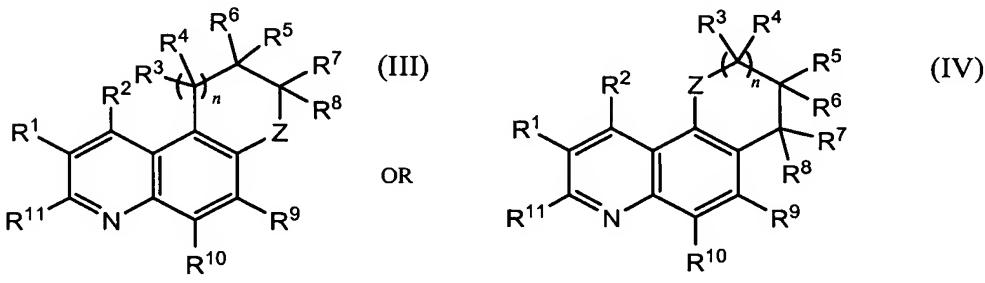
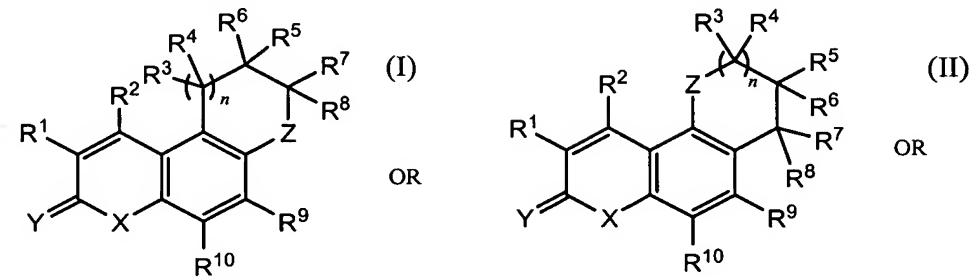
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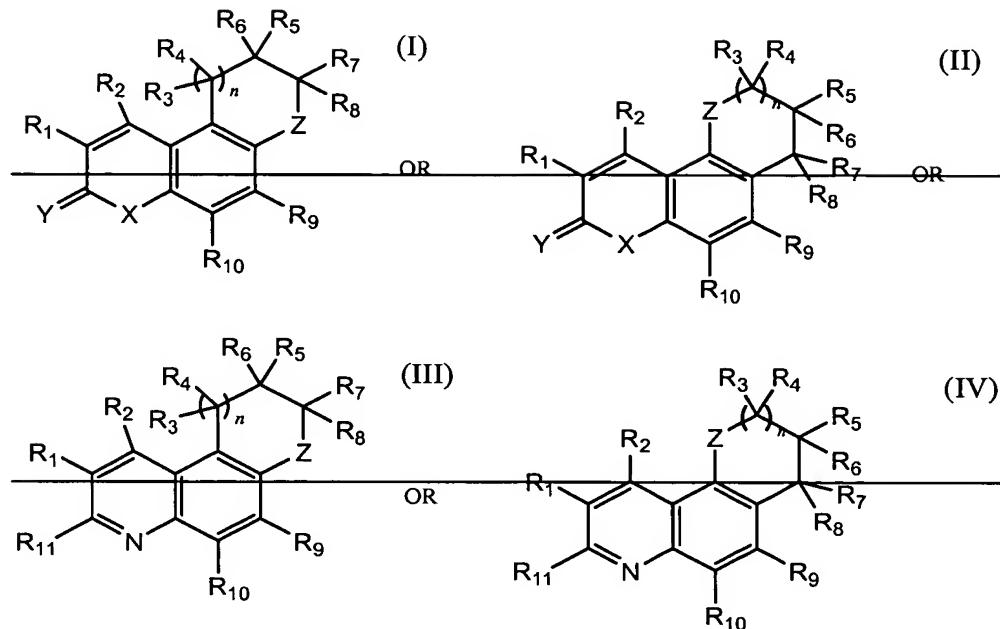
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IN THE CLAIMS:

Please replace Claims 1, 4, 26, 28, 29, 30, 32, 33, 34, 42, 43, 50, 52, 53, and 60 with the following Claims:

1. A compound of the formula:





wherein:

R¹ is selected from among hydrogen, F, Cl, Br, I, NO₂, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹², substituted C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the haloalkyl and heteroalkyl groups are optionally substituted;

R² is selected from among hydrogen, F, Cl, Br, I, CF₃, CHF₂, CH₂F, CF₂Cl, CN, CF₂OR¹², CH₂OR¹², OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, substituted C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl and C₂-C₈ alkynyl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted;

R³ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁴ is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R^5 is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R^6 is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R^7 is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R^8 is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted; or

R^3 and R^5 taken together form a bond; or

R^5 and R^7 taken together form a bond; or

R^4 and R^6 taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted; or

R^6 and R^8 taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted;

R^9 and R^{10} each independently is selected from among hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2m}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

R^{11} is selected from among hydrogen, F, Br, Cl, I, CN, OR¹⁴, NR¹⁴R¹³, and SR¹⁴;

R^{12} and R^{13} each independently is selected from the group of hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and

aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

R^{14} is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

R^{15} and R^{16} each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

W is O or S;

X is N{R¹⁴};

Y is selected from among O, S, N{R¹²} and NO{R¹²};

Z is N{R¹²};

n is 0; and

m is 0 or 1;

or a pharmaceutically acceptable [[salts]] salt thereof.

4. A compound according to claim 1, wherein R² is selected from among hydrogen, F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, substituted C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ heteroalkyl, C₂-C₄ alkenyl and C₂-C₄ alkynyl, wherein the haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted.

26. A compound according to claim 1, wherein:

R^6 and R^8 each independently is selected from [[are]] among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted; or

R^6 and R^8 taken together form a three to eight membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted.

28. A compound according to claim 1, wherein:

R^1 is selected from among hydrogen, F, Cl, Br, I, substituted C_1 - C_6 alkyl, C_1 - C_6 haloalkyl and C_1 - C_6 heteroalkyl, wherein the haloalkyl and heteroalkyl groups are optionally substituted;

R^2 is selected from among hydrogen, F, Cl, Br, CF_3 , CF_2Cl , CF_2H , CFH_2 , substituted C_1 - C_6 alkyl, C_1 - C_6 haloalkyl and C_1 - C_6 heteroalkyl, wherein haloalkyl and heteroalkyl groups are optionally substituted; and

R^3 and R^4 each independently is selected from among hydrogen, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl and C_1 - C_6 heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

29. A compound according to claim 28, wherein:

R^5 through R^8 each independently is selected from among hydrogen, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl and C_1 - C_6 heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

R^6 and R^8 taken together form a four to six membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring [[are]] is optionally substituted.

30. A compound according to claim 29, wherein:

R^9 and R^{10} each independently is selected from among hydrogen, F, Cl, Br, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl and C_1 - C_6 heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R^{12} is selected from among hydrogen, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl and C_1 - C_6 heteroalkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted; and

R^{14} is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

32. A compound according to claim 1, wherein said compound is selected from among:
6-Methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Isopropyl-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Allyl-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(4-Methoxyphenyl)-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(3-Trifluoromethylphenyl)-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
4-Trifluoromethyl-5,6,7,8-tetrahydrocyclopentano[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
4-Trifluoromethyl-5,6,7,8,9,10-hexahydrocycloheptane
hexahydrocycloheptano[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-[[4e]] 4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl-4-
trifluoromethylcyclopentano[g]pyrrolo-[3,2-*f*]quinolin-2(1*H*)-one;
(±)-[[4e]] 4c,5,6,7,7a(*cis*),8-Hexahydro-8-ethyl-4-
trifluoromethylcyclopentano-[g]pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5,6-*cis*-dimethyl-7-(2,2,2-trifluoroethyl)-4-
trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-propyl-4-trifluoromethylcyclopentano-[g]pyrrolo-[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(3-furanyl methyl)-4|~~trifluoromethyl~~trifluoromethylcyclopentane
4-trifluoromethylcyclopentano[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(3-thiophenemethyl)-4-
trifluoromethylcyclopentano[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2-methylpropyl)-4-trifluoromethylcyclopentano[g]-
pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-chlorodifluoroethyl)-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-cyclopropylmethyl-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2-dimethoxyethyl)-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,8,8a(*cis*)-Hexahydro-9-(2,2,2-trifluoroethyl)-4-trifluoromethyl-9*H*-cyclohexano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,8,9,9a(*cis*),10-Octahydro-10-(2,2,2-trifluoroethyl)-4-trifluoromethylcycloheptano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-5,6-*cis*-Dihydro-6-ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-5,6-*cis*-Dihydro-5-butyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-5,6-*cis*-Dihydro-5-(4-nitrophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-5,6-*cis*-Dihydro-5-(4-dimethylaminophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-5,6-*cis*-Dihydro-5-(4-methoxyphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-5,6-*cis*-Dihydro-5-(3-trifluoromethylphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-5,6-*cis*-Dihydro-5-(4-fluorophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-5,6-Dihydro-5-phenyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-5,6-*cis*-Dihydro-5-(4-methoxyphenyl)-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;

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(\pm)-5,6-cis-Dihydro-5-(4-methoxyphenyl)-6-methyl-7-(2,2-dimethoxyethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6-cis-Dihydro-5-isopropyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6-Dihydro-5-ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6-Dihydro-5-ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6-Dihydro-5-(2-ethoxycarbonylethyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5,6-Dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5,6,7,8-Tetrahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano[g]-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
8-Trifluoroethyl-4-trifluoromethyl-6,8-dihydrocyclopentano[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
9-Trifluoroethyl-4-trifluoromethyl-9*H*-benzo[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(3-Trifluoromethylphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(4-Fluorophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;

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5-(2-Ethoxycarbonylethyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Hydroxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Methyl-6-(1-hydroxyethyl)-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Methyl-6-acetyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Formyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Acetyloxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
2-Acetyloxy-5-hydroxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinoline;
6-Ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Ethoxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(+)-6-(1-Methoxyethyl)-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
7-Allyl-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;
6-Ethyl-7-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;
7-(3-Trifluoromethylphenyl)-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;
7-(2-Hydroxyethyl)-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;
(+)-4*c,5,6,7,7a(cis),8*-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethyl-cyclopentano-[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(-)-4*c,5,6,7,7a(cis),8*-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano-[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(\pm)-5,6-Dihydro-6-hydroxymethyl-4-trifluoromethylpyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-5,6-Dihydro-7-ethyl-6-hydroxymethyl-4-trifluoromethylpyrrolo[3,2-f]quinolin-2(1H)-one;
5-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethylpyrrolo[3,2-f]quinolin-2(1H)-one;
6-Formyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one; and
5,6-Dimethyl-7-(2,2-difluorovinyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one.

33. A compound according to claim 1, wherein said compound is selected from the group consisting of:

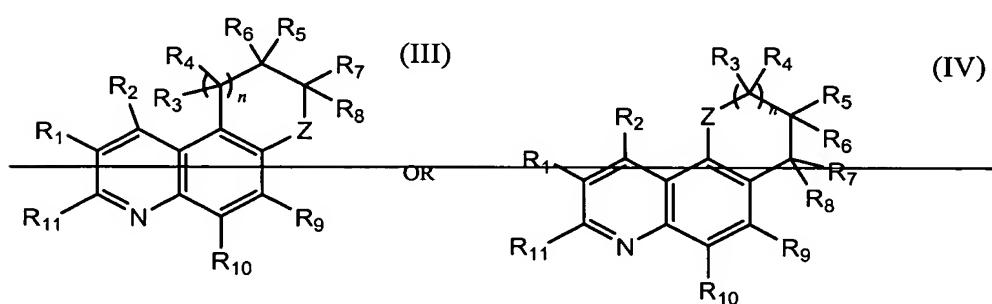
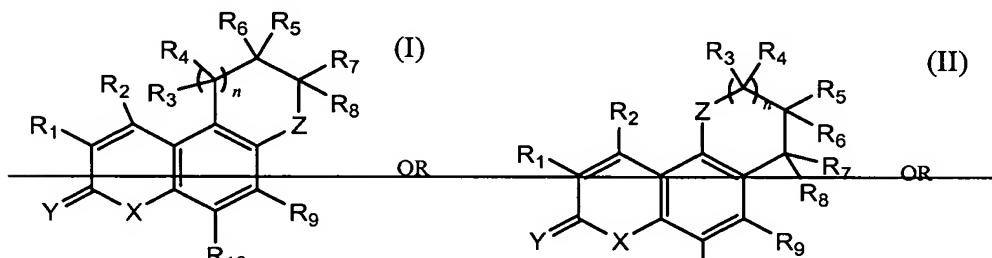
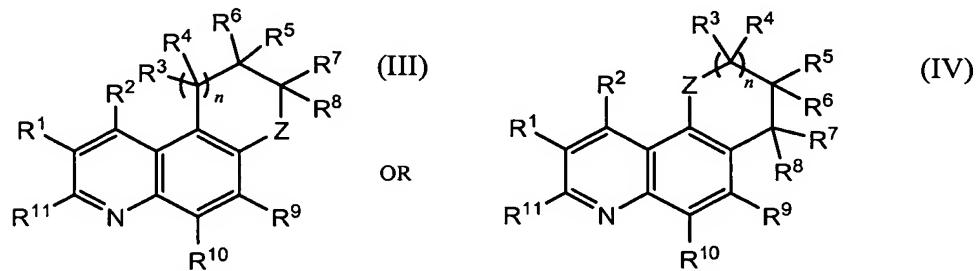
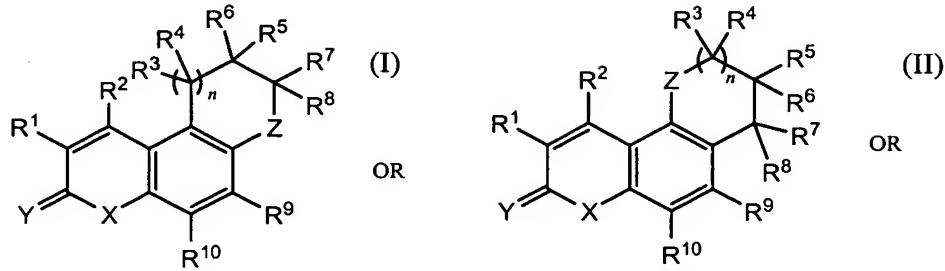
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano-[g]pyrrolo-[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-ethyl-4-trifluoromethylcyclopentano-[g]pyrrolo-[3,2-f]-quinolin-2(1H)-one;
(\pm)-5,6-Dihydro-5,6-*cis*-dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]-quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-propyl-4-trifluoromethylcyclopentano-[g]pyrrolo-[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-chlorodifluoroethyl)-4-trifluoromethylcyclopentano-[g]-pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-cyclopropylmethyl-4-trifluoromethylcyclopentano[g]-pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,8,8a(*cis*)-Hexahydro-9-(2,2,2-trifluoroethyl)-4-trifluoromethyl-9*H*-cyclohexano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-5,6-*cis*-Dihydro-6-ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-5,6-*cis*-Dihydro-5-butyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-

pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5-ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-
pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5-ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-
pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-methyl-6-ethyl-7-(2,2,2-trifluoroethyl)-7*H*-pyrrolo[3,2-*f*]-quinolin-
2(1*H*)-one;
5,6-Dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-
one;
6-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-
2(1*H*)-one;
5-Ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-
2(1*H*)-one;
5,6,7,8-Tetrahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano[*g*]pyrrolo[3,2-*f*]-
quinolin-2(1*H*)-one;
6-Ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(+)-4*c*,5,6,7,7*a*(*cis*),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethyl-
cyclopentano-[*g*]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one; and
(-)-4*c*,5,6,7,7*a*(*cis*),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano-
[*g*]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one.

34. A pharmaceutical composition, comprising:

a pharmaceutically acceptable carrier; and

a compound of formula:



wherein:

R^1 is selected from among hydrogen, F, Cl, Br, I, NO₂, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R^2 is selected from among F, Cl, Br, I, CF₃, CHF₂, CH₂F, CF₂Cl, CN, CF₂OR¹², CH₂OR¹², OR¹², SR¹², SOR¹², SO₂R¹², ~~NR¹²R¹³~~ NR¹²R¹³, substituted C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl and C₂-C₈ alkynyl, wherein the haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted;

R^3 is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R^4 is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R^5 is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R^6 is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R^7 is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R^8 is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈

alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted; or

R^3 and $[\underline{R_5}] \underline{R^5}$ taken together form a bond; or

$[\underline{R_5}] \underline{R^5}$ and R^7 taken together form a bond; or

R^4 and R^6 taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted; or

R^6 and R^8 taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted;

R^9 and R^{10} each independently is selected from among hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2m}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

R^{11} is selected from among hydrogen, F, Br, Cl, I, CN, OR¹⁴, NR¹⁴R¹³ and SR¹⁴;

R^{12} and R^{13} each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

R^{14} is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

R^{15} and R^{16} each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

W is O or S;

X is N{R¹⁴};

Y is selected from among O, S, N{R¹²} and N{OR¹²};

Z is N{R¹²};
n is 0; and
m is 0 or 1;
or a pharmaceutically acceptable [[salts]] salt thereof.

42. A pharmaceutical composition according to claim 34, wherein R¹¹ is selected from among hydrogen, F, Cl, CN, OR¹⁴, NR¹⁴R¹³ and SR¹⁴.

43. A pharmaceutical composition according to claim 42, wherein R¹¹ is selected from among hydrogen, F, Cl, OR¹⁴, SR¹⁴ and NR¹⁴R¹³.

50. A pharmaceutical composition according to claim 49, wherein:

R⁵ through R⁸ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

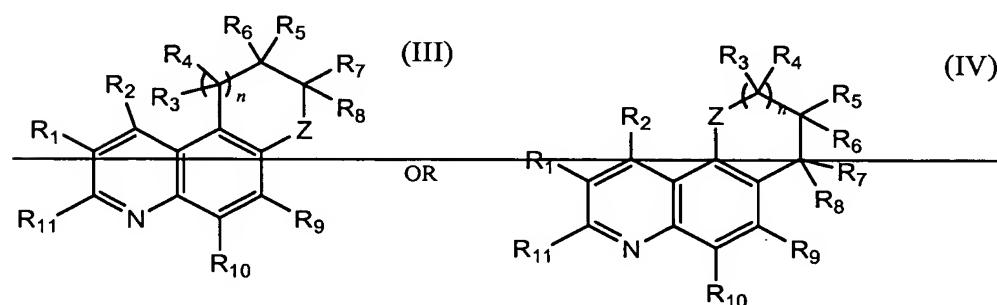
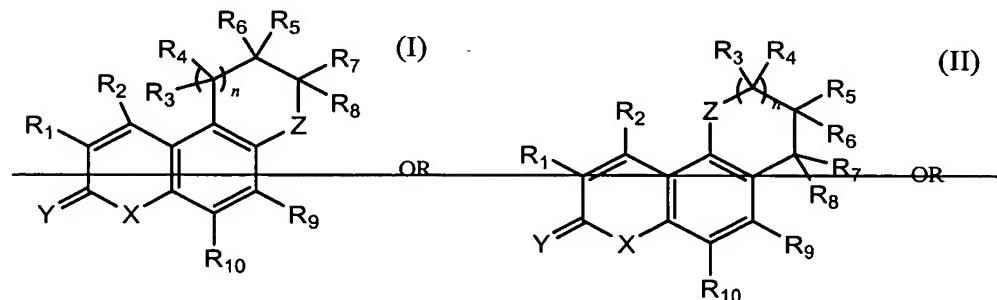
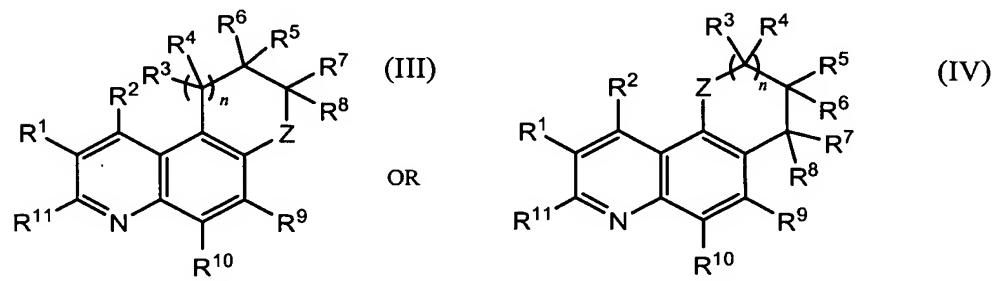
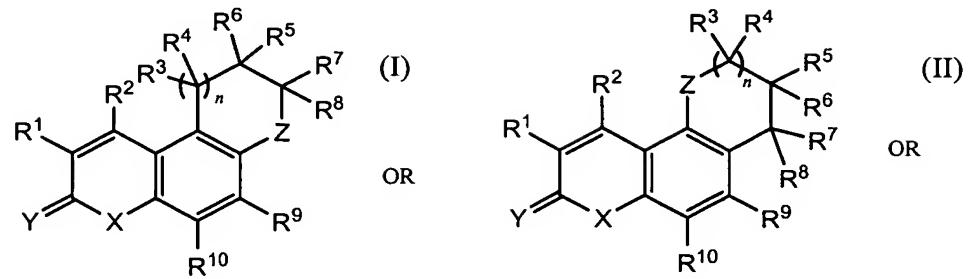
[[R₆]] R⁶ and R⁸ taken together form a four to six membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted.

52. A pharmaceutical composition according to claim [[50]] 51, wherein Y is O or S.

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53. A compound of formula:



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wherein:

R^1 is selected from among hydrogen, F, Cl, Br, I, NO_2 , $OR^{12} \pm SR^{12}$, SOR^{12} , SO_2R^{12} , $NR^{12}R^{12}$ $NR^{12}R^{12}$, C_1-C_8 alkyl, C_1-C_8 haloalkyl and C_1-C_8 heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R^2 is selected from among hydrogen, F, Cl, Br, CF_3 , CHF_2 , CH_2F , CF_2Cl , CF_2OR^{12} , CH_2OR^{12} , OR^{12} , SR^{12} , SOR^{12} , SO_2R^{12} , $NR^{12}R^{13}$, substituted C_1-C_6 alkyl, C_1-C_6 haloalkyl, and C_1-C_6 heteroalkyl, wherein the haloalkyl, and heteroalkyl groups are optionally substituted;

R^3 is selected from among hydrogen, C_1-C_6 alkyl, C_1-C_6 haloalkyl and C_1-C_6 heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R^4 is selected from among hydrogen, C_1-C_6 alkyl, C_1-C_6 haloalkyl and C_1-C_6 heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R^5 is selected from among hydrogen, C_1-C_6 alkyl, C_1-C_6 haloalkyl and C_1-C_6 heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R^6 is selected from among hydrogen, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted;

R^7 is selected from among hydrogen, C_1-C_6 alkyl, C_1-C_6 haloalkyl and C_1-C_6 heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R^8 is selected from among hydrogen, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted; or

R^3 and $[[R_5]] R^5$ taken together form a bond; or
 $[[R_5]] R^5$ and R^7 taken together form a bond; or

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R^4 and R^6 taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted; or

R^6 and R^8 taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted;

R^9 and R^{10} each independently is selected from among hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2m}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

R^{11} is selected from among ~~hydrogen~~, F, Br, Cl, I, CN, OR¹⁴, NR¹⁴R¹³ and SR¹⁴;

R^{12} and R^{13} each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

R^{14} is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

R^{15} and R^{16} each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

W is O or S;

X is N{R¹⁴};

Y is selected from the ~~groups~~ group of O, S, N{R¹²} and NO{R¹²};

Z is N{R¹²};

n is 0; and

m is 0 or 1;

or a pharmaceutically acceptable [[salts]] salt thereof.

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60. A compound according to claim 34, wherein:

R^5 and R^7 each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl[[,]] and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or
 R^5 and R^7 taken together form a bond.

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REMARKS

A Certificate of Correction (Form PTO-1050) incorporating the above changes is included with this Request. Since not all the errors are those of the Patent Office, a check is enclosed to cover the required fee. If it is determined that the fee amount is incorrect or if the check is missing, the Office is hereby authorized to charge the fee to Deposit Account No. 06-1050.

This Certificate of Correction seeks to correct typographical, formatting and spelling errors introduced by the PTO in the "OTHER PUBLICATIONS" section of the References Cited, Item [56].

This Certificate of Correction seeks to correct spelling, grammatical, and formatting errors in the Specification introduced by the PTO and the applicant. The correction to formulas I-VIII beginning at column 2, line 7 and at column 7, beginning at line 15 seeks to correct formatting errors in the R group numbers. The R group numbers should be displayed as superscripts instead of subscripts in accordance with the R group definitions found in columns 3-4 and columns 8-9, respectively. The correction at column 24, lines 53-67 seeks to remove the overlap introduced by the PTO of compound number "8" and the "R₁" group of compound 9 in Scheme II. The correction at column 57, lines 4-6 seeks to correct errors introduced by the PTO by replacing the period with a comma and inserting a closed parenthesis symbol as found on page 76, line 13 of the originally filed application. The correction at column 70, line 21 seeks to correct the obvious spelling error in the word "chlorination."

This Certificate of Correction seeks to correct omissions, formatting, and spelling errors in the Claims. Claim 1 is amended to correct formatting errors in the R group numbers of formula I-IV at column 77, lines 25-65. The R group numbers should be displayed as superscripts instead of subscripts in accordance with the R group definitions found in columns 78-79. The error in Claim 1 at column 78, line 3 (which was previously amended in the Preliminary Amendment, mailed on Jan. 21, 2005, a copy of which is attached herewith as evidence), is corrected by inserting the word "substituted" between "NR¹²R¹²," and "C₁-C₈."

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The error in Claim 1 at column 78, line 7 (which was previously amended in the Preliminary Amendment, mailed on Jan. 21, 2005, a copy of which is attached herewith as evidence), is corrected by deleting the word “hydrogen.” The error in Claim 1 at column 78, line 8 is corrected by inserting in R group number “12” as found on page 112, line 9 of the originally filed application. The error in Claim 1 at column 78, line 11 (which was previously amended in the Preliminary Amendment, mailed on Jan. 21, 2005, a copy of which is attached herewith as evidence), is corrected by deleting the word “alkyl.” The error in Claim 1 at column 78, line 63 (which was previously amended in the Amendment and Response, mailed on Nov. 17, 2003, a copy of which is attached herewith as evidence), is corrected by deleting the word “hydrogen.” The error introduced by the PTO in Claim 1 at column 79, line 19 is corrected by replacing the plural form of the word “salt” with its singular form (which was previously amended in the Amendment and Response, mailed on Nov. 17, 2003, a copy of which is attached herewith as evidence).

Claim 4 is amended to correct the error introduced by the PTO at column 79, line 29 (which was previously amended in the Preliminary Amendment, mailed on Jan. 21, 2005, a copy of which is attached herewith as evidence), by deleting the word “hydrogen.”

Claim 26 is amended to correct the error introduced by the PTO at column 80, line 52 (which was previously amended in the Preliminary Amendment, mailed on Jan. 21, 2005, a copy of which is attached herewith as evidence), by replacing the word “are” with “among.”

Claim 28 is amended to correct the error introduced by the PTO at column 81, line 6 (which was previously amended in the Preliminary Amendment, mailed on Jan. 21, 2005, a copy of which is attached herewith as evidence), by deleting the word “hydrogen.” The error in Claim 28 at column 81, line 7 is corrected by replacing the semicolon with a comma.

Claim 29 is amended to correct the grammatical error at column 81, line 21 by replacing the word “are” with “is.”

Claim 30 is amended to correct the grammatical error at column 81, line 27 by inserting a comma between “C₁-C₆ alkyl” and “C₁-C₆” as found on page 119, line 12 of the originally filed application.

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Claim 32 is amended to correct the spelling error introduced by the PTO at column 81, line 54 by replacing “hexahydrocyeloheptano” with “hexahydrocycloheptano” as found on page 120, line 17 of the originally filed application. The spelling errors introduced by the PTO in Claim 32 at column 81, lines 56 and 59 is corrected by replacing “4e” with “4c” as found on page 120, lines 18 and 22 of the originally filed application. The correction to Claim 32 at column 82, line 2 seeks to correct a typographical error by inserting a dash between “4” and “trifluoromethylcyclopentano” as found on page 121, line 5 of the originally filed application.

Claim 33 is amended to correct the name of the compound beginning at column 84, line 10 by inserting “(2,2,2-trifluoroethyl)” between “7-” and “4.” The basis for this correction is found in the Specification at column 43, lines 26-28 where the correct name of Compound 123 is presented.

Claim 34 is amended to correct formatting errors in the R group numbers of formula I-IV at column 85, lines 1-45. The R group numbers should be displayed as superscripts instead of subscripts in accordance with the R group definitions found in columns 85-86. The formatting error introduced by the PTO in Claim 34 at column 85, line 54 is corrected by removing the superscripting from “NR” of list item “NR¹²R¹³.” The spelling errors introduced by the PTO in Claim 34 at column 86, lines 5 and 16 are corrected by replacing “haloroalkyl” with “haloalkyl.” The formatting errors introduced by the PTO in Claim 34 at column 86, lines 26 and 27 are corrected by replacing “R₅” with “R⁵” as found in the originally filed application at page 131, lines 13 and 14. The formatting error in Claim 34 at column 86, line 53 is corrected by replacing “CO₂R¹⁵” with “CO₂R¹⁵” as found in the originally filed application at page 132, line 6. The error introduced by the PTO in Claim 34 at column 86, line 67 is corrected by replacing the plural form of the word “salt” with its singular form (which was previously amended in the Amendment and Response, mailed on Nov. 17, 2003, a copy of which is attached herewith as evidence).

Claim 42 is amended to correct the error introduced by the PTO at column 87, line 33 (which was previously amended in the Amendment and Response, mailed on Nov. 17, 2003, a copy of which is attached herewith as evidence), by deleting the word “hydrogen.”

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Claim 43 is amended to correct the error introduced by the PTO at column 87, line 36 (which was previously amended in the Amendment and Response, mailed on Nov. 17, 2003, a copy of which is attached herewith as evidence), by deleting the word "hydrogen." The error in Claim 43 at column 87, line 37 is corrected by inserting the R group number "14" as found on page 134, line 2 of the originally filed application.

Claim 50 is amended to correct the formatting error introduced by the PTO at column 88, line 31 by replacing "R₆" with "R⁶" as found in the originally filed application at page 136, line 4.

Claim 52 is amended to correct the error introduced by the PTO at column 88, line 51 in the reference to dependent claim 51 by replacing "50" with "51."

Claim 53 is amended to correct formatting errors in the R group numbers of formula I-IV beginning at column 88, line 55. The R group numbers should be displayed as superscripts instead of subscripts in accordance with the R group definitions found in columns 89-90. The error introduced by the PTO in Claim 53 at column 89, line 38 in list item "OR¹²SR¹²" is corrected by inserting a comma and a space between "OR¹²" and "SR¹²" as found in the Preliminary Amendment, mailed on Jan. 21, 2005, a copy of which is attached herewith as evidence. The error introduced by the PTO in Claim 53 at column 89, line 38 in list item "NR¹² R¹²" is corrected by deleting the space between "NR¹²" and "R¹²" as found in the Preliminary Amendment, mailed on Jan. 21, 2005, a copy of which is attached herewith as evidence. The error introduced by the PTO in Claim 53 at column 89, line 42 is corrected by deleting the word "hydrogen" as found in the Preliminary Amendment, mailed on Jan. 21, 2005, a copy of which is attached herewith as evidence. The error in Claim 53 at column 89, line 43 is corrected by inserting the R group number "12" in list item "CH₂OR¹²" as found in the Preliminary Amendment, mailed on Jan. 21, 2005, a copy of which is attached herewith as evidence.

Claim 53 is further amended to correct a grammatical error at column 89, line 44 by inserting a comma between "alkyl" and "C₁-C₆." The error introduced by the PTO in Claim 53 at column 89, line 61 is corrected by inserting "heteroalkyl," between "C₁-C₆" and "heteroaryl"

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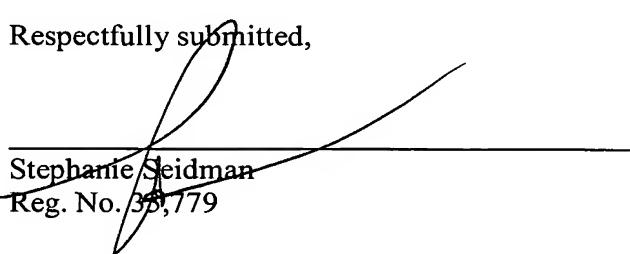
Attorney's Docket No.: 18202-017001 / 1081

as found in the Amendment and Response, mailed Sep. 15, 2005, a copy of which is herewith attached as evidence. The formatting errors introduced by the PTO in Claim 53 at column 90, lines 5 and 6 are corrected by replacing “R₅” with “R⁵” as found in the Preliminary Amendment, mailed on Jan. 21, 2005, a copy of which is herewith attached as evidence. The error introduced by the PTO in Claim 53 at column 90, line 19 is corrected by deleting the word “hydrogen” as found in the Preliminary Amendment, mailed on Jan. 21, 2005, a copy of which is herewith attached as evidence. The error introduced by the PTO in Claim 53 at column 90, line 39 is corrected by replacing the plural form of the word “group” with its singular form as found in the Preliminary Amendment, mailed on Jan. 21, 2005, a copy of which is herewith attached as evidence. The error introduced by the PTO in Claim 53 at column 90, line 44 is corrected by replacing the plural form of the word “salt” with its singular form as found in the Preliminary Amendment, mailed on Jan. 21, 2005, a copy of which is attached herewith as evidence.

Claim 60 is amended to correct the grammatical error introduced by the PTO at column 91, line 9 by inserting “and” between “haloalkyl” and “C₁-C₆” as found in the Preliminary Amendment, mailed on Jan. 21, 2005, a copy of which is attached herewith as evidence.

This Certificate of Correction seeks to amend these errors in the Title Pages, Specification, and Claims introduced by the Patent and Trademark Office and the applicant. These changes do not constitute new matter. Patentee respectfully requests correction of these errors by issuance of a Certificate of Correction.

Respectfully submitted,


Stephanie Seidman
Reg. No. 38,179

Attorney Docket No. 18202-017001 / 1081

Address all correspondence to:

Stephanie Seidman
Fish & Richardson P.C.
12390 El Camino Real
San Diego, California 92130
Telephone: (858) 678-4777
Facsimile: (202) 626-7796
email: seidman@fr.com
10652263.doc

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 7,026,484
DATED : APRIL 11, 2006
INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

IN THE TITLE PAGES:

In Item [56] References Cited, in OTHER PUBLICATIONS:
in Yudin, please replace “Geterotsikicheskikh” with —Geterotsiklicheskikh—
in the first Yamashkin et al., please replace “Chemistry.of” with —Chemistry of—
in Edwards, J., et al., please replace “(1999)” with —(1998)—
in Boyer, M., please replace
“<http://www.australianprescriber.com/magazines/vol19no1/ap19-1-11.htm>(accessed on Jan. 28, 2005.” with —<http://www.australianprescriber.com/magazines/vol19no1/ap19-1-11.htm> (accessed on Jan. 28, 2005).—
in Castillo, P., please replace “o-dihdroxyaromatic” with —o-dihydroxyaromatic—

MAILING ADDRESS OF SENDER:

PATENT NO. 7,026,484

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Fish & Richardson P.C.
12390 El Camino Real
San Diego, California 92130

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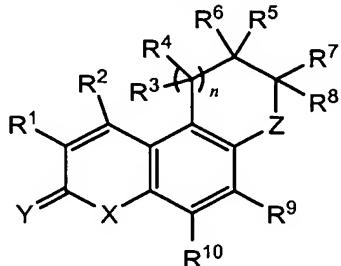
UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT No. : 7,026,484
DATED : APRIL 11, 2006
INVENTOR(S) : LIN ZHI ET AL.

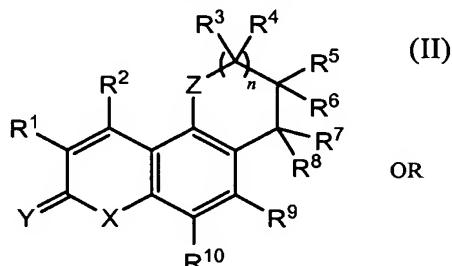
It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

IN THE SPECIFICATION:

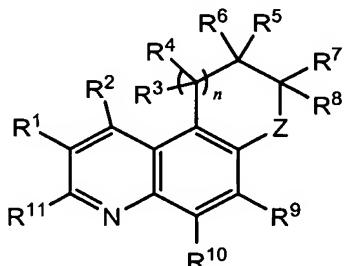
In column 2, beginning at line 7, please replace formulas I-VIII with:



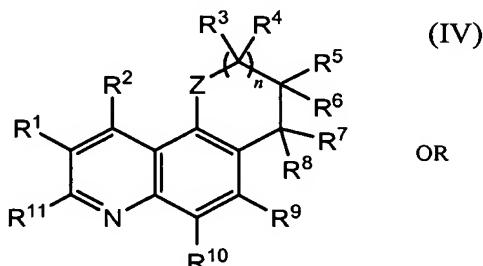
(I)



(II)



(III)



(IV)

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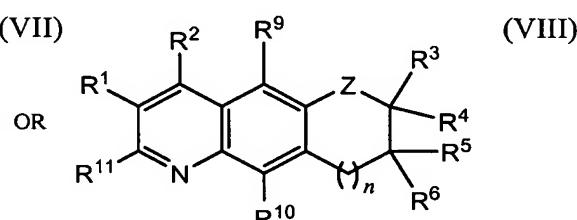
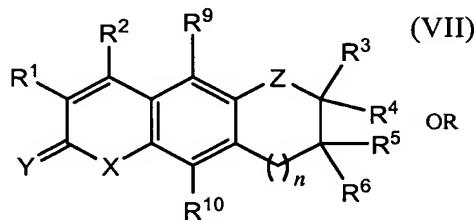
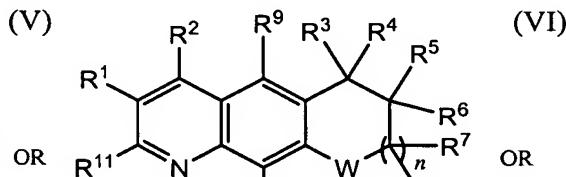
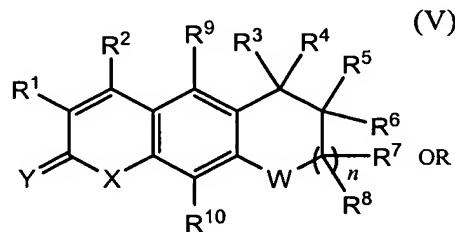
UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT No. : 7,026,484

DATED : APRIL 11, 2006

INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:



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PATENT NO. 7,026,484

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Fish & Richardson P.C.
12390 El Camino Real
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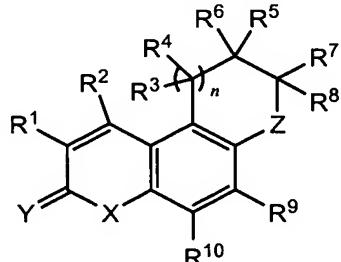
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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

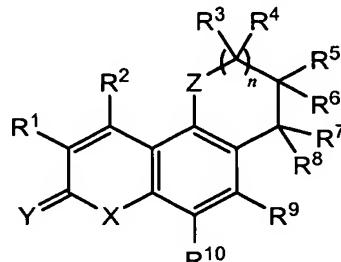
PATENT NO. : 7,026,484
DATED : APRIL 11, 2006
INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

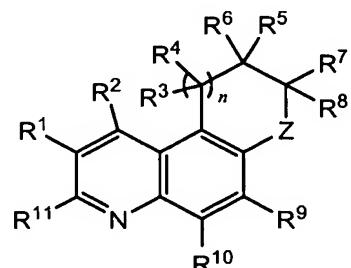
in column 7, beginning at line 15, please replace formulas I-VIII with:



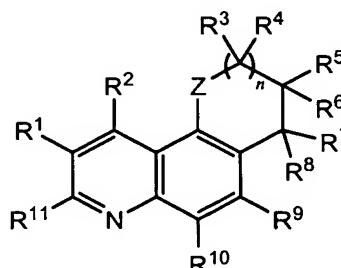
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Fish & Richardson P.C.
12390 El Camino Real
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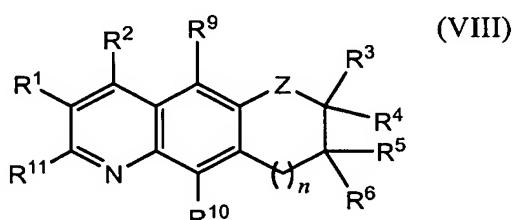
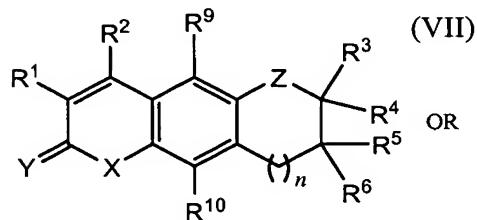
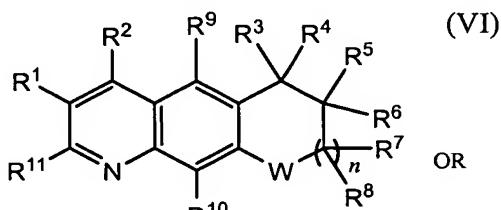
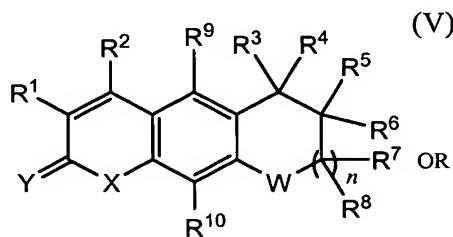
UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT No. : 7,026,484

DATED : APRIL 11, 2006

INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:



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PATENT NO. 7,026,484

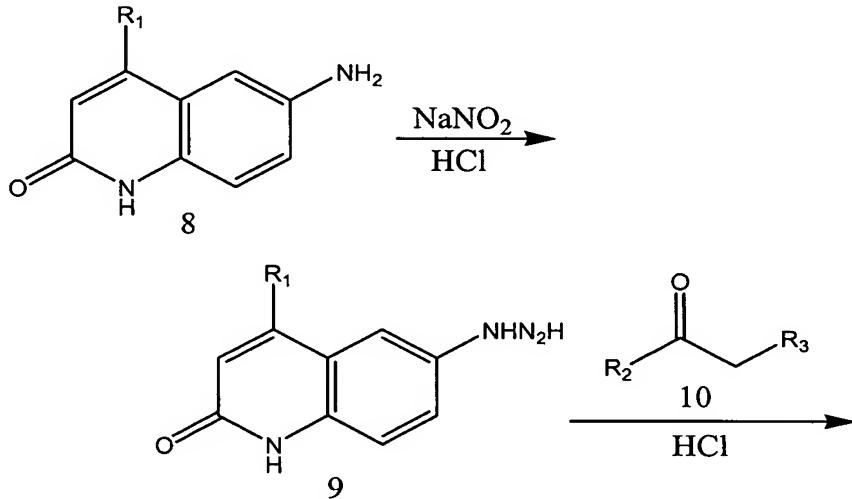
Stephanie Seidman
Fish & Richardson P.C.
12390 El Camino Real
San Diego, California 92130

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Only**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

PATENT No. : 7,026,484
DATED : APRIL 11, 2006
INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

in column 24, lines 53-67, please replace the structures in Scheme II with:



in column 57, lines 4-6, please replace
“(Compound 177, Structure 26 of Scheme IV, where R₂=methyl. R₃=2-hydroxyethyl”
with —(Compound 177, Structure 26 of Scheme IV, where R₂=methyl, R₃=2-
hydroxyethyl)—

in column 70, line 21, please replace “chloronation” with —chlorination—

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Stephanie Seidman
Fish & Richardson P.C.
12390 El Camino Real
San Diego, California 92130

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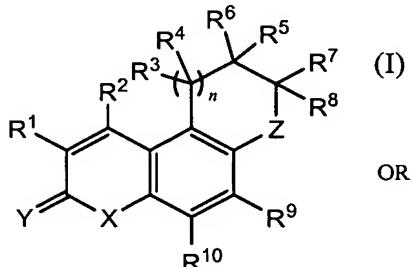
PATENT No. : 7,026,484
 DATED : APRIL 11, 2006
 INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

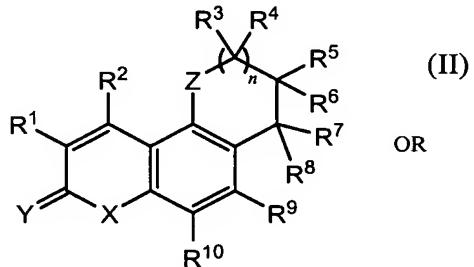
IN THE CLAIMS:

Please replace Claims 1, 4, 26, 28, 29, 30, 32, 33, 34, 42, 43, 50, 52, 53, and 60 with the following Claims:

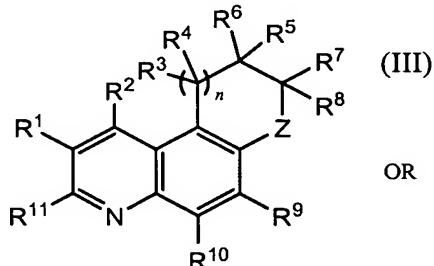
1. A compound of the formula:



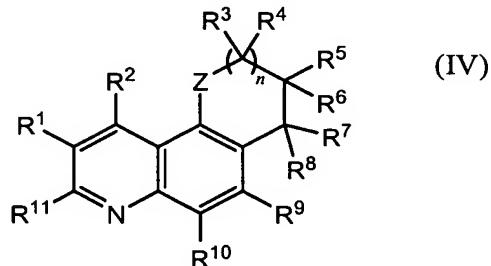
OR



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Stephanie Seidman
 Fish & Richardson P.C.
 12390 El Camino Real
 San Diego, California 92130

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 7,026,484
DATED : APRIL 11, 2006
INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

wherein:

R¹ is selected from among hydrogen, F, Cl, Br, I, NO₂, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹², substituted C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the haloalkyl and heteroalkyl groups are optionally substituted;

R² is selected from among F, Cl, Br, I, CF₃, CHF₂, CH₂F, CF₂Cl, CN, CF₂OR¹², CH₂OR¹², OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, substituted C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl and C₂-C₈ alkynyl, wherein the haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted;

R³ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁴ is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R⁵ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁶ is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R⁷ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

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12390 El Camino Real
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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 7,026,484
DATED : APRIL 11, 2006
INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

R^8 is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted; or

R^3 and R^5 taken together form a bond; or

R^5 and R^7 taken together form a bond; or

R^4 and R^6 taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted; or

R^6 and R^8 taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted;

R^9 and R^{10} each independently is selected from among hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2m}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

R^{11} is selected from among F, Br, Cl, I, CN, OR¹⁴, NR¹⁴R¹³, and SR¹⁴;

R^{12} and R^{13} each independently is selected from the group of hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

R^{14} is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

R^{15} and R^{16} each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

MAILING ADDRESS OF SENDER:

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Stephanie Seidman
Fish & Richardson P.C.
12390 El Camino Real
San Diego, California 92130

Staple
Here
Only

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT No. : 7,026,484
DATED : APRIL 11, 2006
INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

W is O or S;
X is N{R¹⁴};
Y is selected from among O, S, N{R¹²} and NO{R¹²};
Z is N{R¹²};
n is 0; and
m is 0 or 1;
or a pharmaceutically acceptable salt thereof.

4. A compound according to claim 1, wherein R² is selected from among F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, substituted C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ heteroalkyl, C₂-C₄ alkenyl and C₂-C₄ alkynyl, wherein the haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted.

26. A compound according to claim 1, wherein:

R⁶ and R⁸ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted; or

R⁶ and R⁸ taken together form a three to eight membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted.

28. A compound according to claim 1, wherein:

R¹ is selected from among hydrogen, F, Cl, Br, I, substituted C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the haloalkyl and heteroalkyl groups are optionally substituted;

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Stephanie Seidman
Fish & Richardson P.C.
12390 El Camino Real
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Staple
Here
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INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

R^2 is selected from among F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, substituted C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein haloalkyl and heteroalkyl groups are optionally substituted; and

R^3 and R^4 each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

29. A compound according to claim 28, wherein:

R^5 through R^8 each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

R^6 and R^8 taken together form a four to six membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted.

30. A compound according to claim 29, wherein:

R^9 and R^{10} each independently is selected from among hydrogen, F, Cl, Br, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R^{12} is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted; and

R^{14} is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

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12390 El Camino Real
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32. A compound according to claim 1, wherein said compound is selected from among:
6-Methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Isopropyl-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Allyl-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(4-Methoxyphenyl)-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(3-Trifluoromethylphenyl)-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
4-Trifluoromethyl-5,6,7,8-tetrahydrocyclopentano[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
4-Trifluoromethyl-5,6,7,8,9,10-hexahydrocycloheptano[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano[g]pyrrolo-[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-ethyl-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5,6-*cis*-dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-propyl-4-trifluoromethylcyclopentano-[g]pyrrolo-[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(3-furanylmethyl)-4-trifluoromethylcyclopentano[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(3-thiophenemethyl)-4-trifluoromethylcyclopentano[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2-methylpropyl)-4-trifluoromethylcyclopentano[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

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Stephanie Seidman
Fish & Richardson P.C.
12390 El Camino Real
San Diego, California 92130

Staple
Here
Only**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

PATENT NO. : 7,026,484
DATED : APRIL 11, 2006
INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-chlorodifluoro-ethyl)-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-cyclopropylmethyl-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2-dimethoxyethyl)-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,8,8a(*cis*)-Hexahydro-9-(2,2,2-trifluoroethyl)-4-trifluoromethyl-9*H*-cyclohexano[g]pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,8,9,9a(*cis*),10-Octahydro-10-(2,2,2-trifluoroethyl)-4-trifluoromethylcycloheptano[g]pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-6-ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-butyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(4-nitrophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(4-dimethylaminophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(4-methoxyphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(3-trifluoromethylphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(4-fluorophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1*H*)-one;

MAILING ADDRESS OF SENDER:

PATENT NO. 7,026,484

Stephanie Seidman
Fish & Richardson P.C.
12390 El Camino Real
San Diego, California 92130

Staple
Here
Only

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CERTIFICATE OF CORRECTION

PATENT No. : 7,026,484
DATED : APRIL 11, 2006
INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(±)-5,6-Dihydro-5-phenyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(4-methoxyphenyl)-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(4-methoxyphenyl)-6-methyl-7-(2,2-dimethoxyethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-isopropyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5-ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5-ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5-(2-ethoxycarbonylethyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5,6-Dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5,6,7,8-Tetrahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano[*g*]-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;

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Stephanie Seidman
Fish & Richardson P.C.
12390 El Camino Real
San Diego, California 92130

Staple
Here
Only

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,026,484
DATED : APRIL 11, 2006
INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

8-Trifluoroethyl-4-trifluoromethyl-6,8-dihydrocyclopentano[*g*]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
9-Trifluoroethyl-4-trifluoromethyl-9*H*-benzo[*g*]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(3-Trifluoromethylphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(4-Fluorophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(2-Ethoxycarbonylethyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Hydroxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Methyl-6-(1-hydroxyethyl)-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Methyl-6-acetyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Formyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Acyloxyethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
2-Acyloxy-5-hydroxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinoline;
6-Ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Ethoxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

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PATENT NO. 7,026,484

Stephanie Seidman
Fish & Richardson P.C.
12390 El Camino Real
San Diego, California 92130

Staple
Here
Only

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PATENT No. : 7,026,484
DATED : APRIL 11, 2006
INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(+)-6-(1-Methoxyethyl)-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
7-Allyl-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;
6-Ethyl-7-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;
7-(3-Trifluoromethylphenyl)-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;
7-(2-Hydroxyethyl)-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;
(+)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethyl-cyclopentano-[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(-)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano-[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-6-hydroxymethyl-4-trifluoromethylpyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-7-ethyl-6-hydroxymethyl-4-trifluoromethylpyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethylpyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Formyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one; and
5,6-Dimethyl-7-(2,2-difluorovinyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one.

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Stephanie Seidman
Fish & Richardson P.C.
12390 El Camino Real
San Diego, California 92130

Staple
Here
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It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

33. A compound according to claim 1, wherein said compound is selected from the group consisting of:
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano-[g]pyrrolo-[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-ethyl-4-trifluoromethylcyclopentano-[g]pyrrolo-[3,2-*f*]-quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5,6-*cis*-dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-propyl-4-trifluoromethylcyclopentano-[g]pyrrolo-[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-chlorodifluoroethyl)-4-trifluoromethylcyclopentano-[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-cyclopropylmethyl-4-trifluoromethyl-cyclopentano[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,8,8a(*cis*)-Hexahydro-9-(2,2,2-trifluoroethyl)-4-trifluoromethyl-9*H*-cyclohexano[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-6-ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-butyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5-ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5-ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

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Stephanie Seidman
Fish & Richardson P.C.
12390 El Camino Real
San Diego, California 92130

Staple
Here
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It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(±)-5,6-cis-Dihydro-5-methyl-6-ethyl-7-(2,2,2-trifluoroethyl)-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
5,6-Dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5,6,7,8-Tetrahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
6-Ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(+)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethyl-cyclopentano-[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one; and
(-)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one.

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Stephanie Seidman
Fish & Richardson P.C.
12390 El Camino Real
San Diego, California 92130

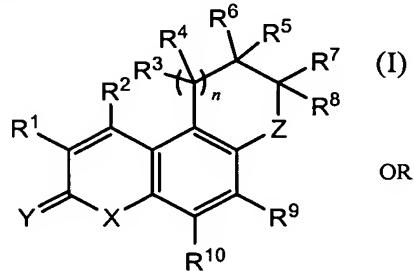
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CERTIFICATE OF CORRECTION

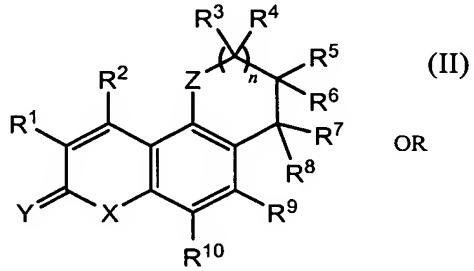
PATENT No. : 7,026,484
DATED : APRIL 11, 2006
INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

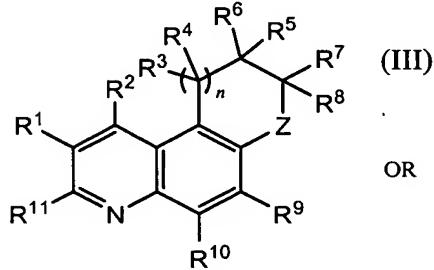
34. A pharmaceutical composition, comprising:
a pharmaceutically acceptable carrier; and
a compound of formula:



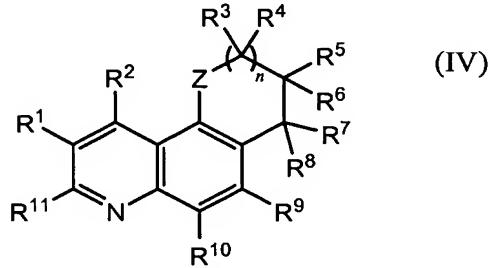
OR



OR



OR



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PATENT NO. 7,026,484

Stephanie Seidman
Fish & Richardson P.C.
12390 El Camino Real
San Diego, California 92130

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PATENT NO. : 7,026,484
DATED : APRIL 11, 2006
INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

wherein:

R¹ is selected from among hydrogen, F, Cl, Br, I, NO₂, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R² is selected from among F, Cl, Br, I, CF₃, CHF₂, CH₂F, CF₂Cl, CN, CF₂OR¹², CH₂OR¹², OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, substituted C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl and C₂-C₈ alkynyl, wherein the haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted;

R³ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁴ is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R⁵ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁶ is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R⁷ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

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PATENT No. : 7,026,484
DATED : APRIL 11, 2006
INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

R⁸ is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted; or

R³ and R⁵ taken together form a bond; or

R⁵ and R⁷ taken together form a bond; or

R⁴ and R⁶ taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted; or

R⁶ and R⁸ taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted;

R⁹ and R¹⁰ each independently is selected from among hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2m}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

R¹¹ is selected from among hydrogen, F, Br, Cl, I, CN, OR¹⁴, NR¹⁴R¹³ and SR¹⁴;

R¹² and R¹³ each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

R¹⁴ is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

R¹⁵ and R¹⁶ each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

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12390 El Camino Real
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PATENT No. : 7,026,484
DATED : APRIL 11, 2006
INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

W is O or S;
X is N{R¹⁴};
Y is selected from among O, S, N{R¹²} and N{OR¹²};
Z is N{R¹²};
n is 0; and
m is 0 or 1;
or a pharmaceutically acceptable salt thereof.

42. A pharmaceutical composition according to claim 34, wherein R¹¹ is selected from among F, Cl, CN, OR¹⁴, NR¹⁴R¹³ and SR¹⁴.

43. A pharmaceutical composition according to claim 42, wherein R¹¹ is selected from among F, Cl, OR¹⁴, SR¹⁴ and NR¹⁴R¹³.

50. A pharmaceutical composition according to claim 49, wherein:
R⁵ through R⁸ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or
R⁶ and R⁸ taken together form a four to six membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted.

52. A pharmaceutical composition according to claim 51, wherein Y is O or S.

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12390 El Camino Real
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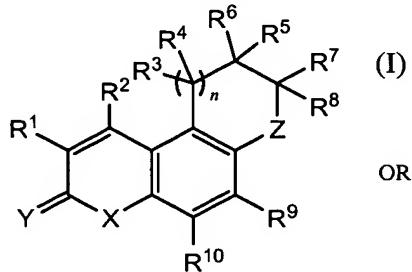
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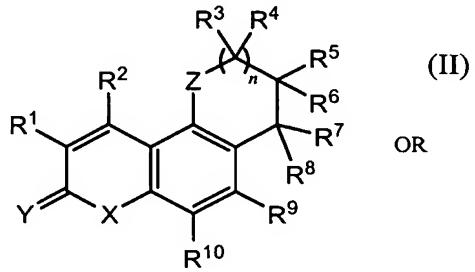
PATENT No. : 7,026,484
DATED : APRIL 11, 2006
INVENTOR(S) : LIN ZHI ET AL.

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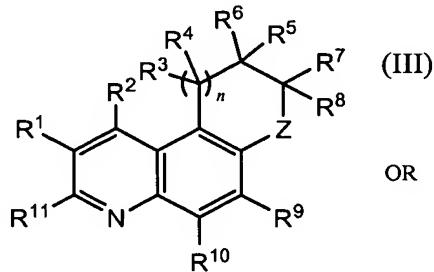
53. A compound of formula:



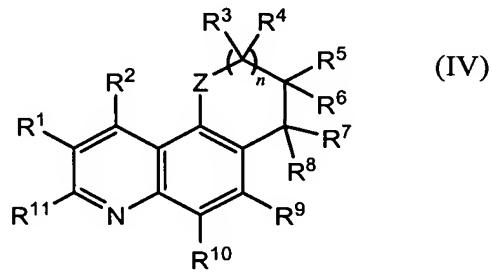
(I)
OR



(II)
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(III)
OR



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12390 El Camino Real
San Diego, California 92130

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DATED : APRIL 11, 2006
INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

wherein:

R¹ is selected from among hydrogen, F, Cl, Br, I, NO₂, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R² is selected from among F, Cl, Br, CF₃, CHF₂, CH₂F, CF₂Cl, CF₂OR¹², CH₂OR¹², OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, substituted C₁-C₆ alkyl, C₁-C₆ haloalkyl, and C₁-C₆ heteroalkyl, wherein the haloalkyl, and heteroalkyl groups are optionally substituted;

R³ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁴ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁵ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁶ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted;

R⁷ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁸ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted; or

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Fish & Richardson P.C.
12390 El Camino Real
San Diego, California 92130

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 7,026,484
DATED : APRIL 11, 2006
INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

R^3 and R^5 taken together form a bond; or

R^5 and R^7 taken together form a bond; or

R^4 and R^6 taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted; or

R^6 and R^8 taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted;

R^9 and R^{10} each independently is selected from among hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2m}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

R^{11} is selected from among F, Br, Cl, I, CN, OR¹⁴, NR¹⁴R¹³ and SR¹⁴;

R^{12} and R^{13} each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

R^{14} is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

R^{15} and R^{16} each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

W is O or S;

X is N{R¹⁴};

Y is selected from the group of O, S, N{R¹²} and NO{R¹²};

Z is N{R¹²};

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PATENT No. : 7,026,484
DATED : APRIL 11, 2006
INVENTOR(S) : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

n is 0; and
m is 0 or 1;
or a pharmaceutically acceptable salt thereof.

60. A compound according to claim 34, wherein:

R⁵ and R⁷ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

R⁵ and R⁷ taken together form a bond.

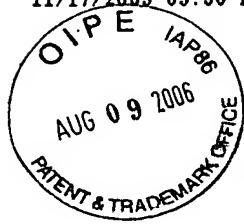
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Stephanie Seidman
Fish & Richardson P.C.
12390 El Camino Real
San Diego, California 92130

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PAUL HASTINGS



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45026.00096.UTL
PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:) Group Art Unit: 1625
Lin Zhi, et al.) Examiner: Evelyn Huang
Serial No.: 10/080,926)
Filed: February 22, 2002)
For: TRICYCLIC ANDROGEN RECEPTOR)
MODULATOR COMPOUNDS AND)
METHODS)

AMENDMENT & RESPONSE TO OFFICE ACTION

Mail Stop Amendment
Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313

Sir:

In response to the Office Action mailed June 16, 2003, please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks begin on page 29 of this paper.

Certificate of Transmission under 37 CFR 1.8

I hereby certify that this correspondence is being facsimile transmitted (703-872-9306) to the United States Patent and Trademark Office on September 17, 2003.

JANICE CRISP

Typed or printed name of person signing Certificate

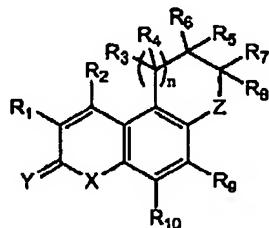
Signature

45026.00096.UTL1
PATENTAmendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

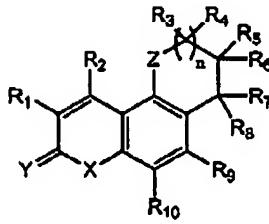
Listing of Claims:

1. (Currently Amended) A compound of the formula:



(I)

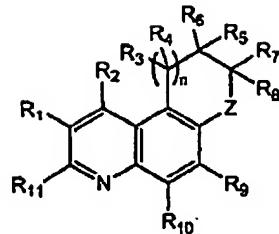
OR



(II)

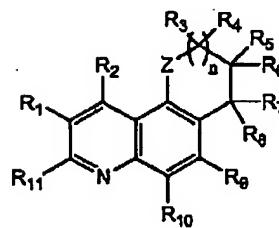
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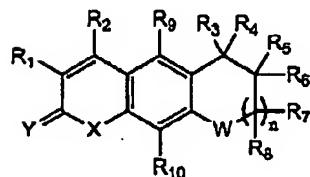
(III)

OR



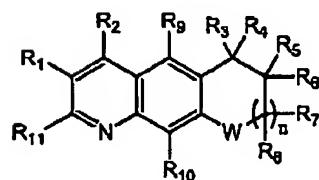
(IV)

OR



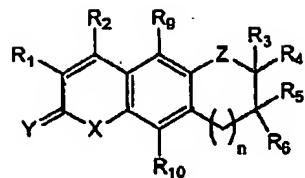
(V)

OR

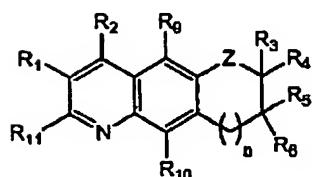


(VI)

OR

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OR



wherein:

R^1 is selected from the group of hydrogen, F, Cl, Br, I, NO_2 , OR^{12} , SR^{12} , SOR^{12} , SO_2R^{12} , $NR^{12}R^{13}$, C_1-C_8 alkyl, C_1-C_8 haloalkyl and C_1-C_8 heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted;

R^2 is selected from the group of hydrogen, F, Cl, Br, I, CH_3 , CF_3 , CHF_2 , CH_2F , CF_2Cl , CN, CF_2OR^{12} , CH_2OR^{12} , OR^{12} , SR^{12} , SOR^{12} , SO_2R^{12} , $NR^{12}R^{13}$, C_1-C_8 alkyl, C_1-C_8 haloalkyl, C_1-C_8 heteroalkyl, C_2-C_8 alkenyl and C_2-C_8 alkynyl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl and alkynyl groups may be optionally substituted;

R^3 through R^8 each independently is selected from the group of hydrogen, F, Cl, Br, I, OR^{12} , $NR^{12}R^{13}$, SR^{12} , SOR^{12} , SO_2R^{12} , C_1-C_8 alkyl, C_1-C_8 haloalkyl, C_1-C_8 heteroalkyl, C_2-C_8 alkynyl, C_2-C_8 alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups may be optionally substituted; or

R^3 and R^5 taken together form a bond; or

R^5 and R^7 taken together form a bond; or

R^4 and R^6 taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may optionally substituted; or

R^6 and R^8 taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may optionally substituted;

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R^9 and R^{10} each independently is selected from the group of hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2m}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups may be optionally substituted;

R^{11} is selected from the group of hydrogen, F, Br, Cl, I, CN, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, OR¹⁴, NR¹⁴R¹³, and SR¹⁴, CH₂R¹⁴, C(O)R¹⁴, CO₂R¹⁴, C(O)NR¹⁴R¹³, SOR¹⁴ and SO₂R¹⁴, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted;

R^{12} and R^{13} each independently is selected from the group of hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups may be optionally substituted;

R^{14} is selected from the group of hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups may be optionally substituted;

R^{15} and R^{16} each independently is selected from the group of hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted;

W is O or S;

X is selected from the group of O, S and N{R¹⁴};

Y is selected from the group of O, S, N{R¹²}, and NO{R¹²} and CR₁₂R₁₃;

Z is selected from the group of O, S and N{R¹²};

n is 0, 1 or 2;

m is 0[,] or 1;

and/or a pharmaceutically acceptable salts thereof.

2. (Original) A compound according to claim 1, wherein R² is selected from the group of hydrogen, F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted.

3. (Original) A compound according to claim 1, wherein R² is selected from the group of CF₂OR¹², CH₂OR¹², OR¹², SR¹², SOR¹², SO₂R¹² and NR¹²R¹³.

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4. (Original) A compound according to claim 1, wherein R² is selected from the group of hydrogen, F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ heteroalkyl, C₂-C₄ alkenyl and C₂-C₄ alkynyl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl and alkynyl groups may be optionally substituted.

5. (Original) A compound according to claim 4, wherein R² is selected from the group of hydrogen, F, Cl, CF₃, CF₂Cl, CF₂H, CFH₂ and optionally substituted C₁-C₄ alkyl.

6. (Original) A compound according to claim 1, wherein R⁹ and R¹⁰ each independently is selected from hydrogen, F, Cl, Br, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted

7. (Original) A compound according to claim 6, wherein R⁹ and R¹⁰ each independently is selected from the group of hydrogen, F, Cl, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted.

8. (Original) A compound according to claim 7, wherein R⁹ and R¹⁰ each independently is selected from the group of hydrogen, F and CH₃.

9. (Original) A compound according to claim 1, wherein R¹ is selected from the group of hydrogen, F, Cl, Br, I, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted.

10. (Original) A compound according to claim 9, wherein R¹ is selected from the group of hydrogen, F, Cl, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted.

11. (Original) A compound according to claim 9, wherein R¹ is hydrogen or F.

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12. (Original) A compound according to claim 1, wherein Y and W each independently is O or S.
13. (Original) A compound according to claim 12, wherein Y and W are each O.
14. (Currently amended) A compound according to claim 1, wherein R¹¹ is selected from the group of ~~hydrogen, F, Br, Cl, CN, C1-C6 alkyl, C1-C6 haloalkyl, C1-C6 heteroalkyl, OR¹⁴, NR¹⁴R¹³, and SR¹⁴, CH₂R¹⁴, C(O)R¹⁴, CO₂R¹⁴, C(O)NR¹⁴R¹³, SOR¹⁴ and SO₂R¹⁴, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted.~~
15. (Currently amended) A compound according to claim 14, wherein R¹¹ is selected from the group of ~~hydrogen, F, Cl, OR¹⁴, SR¹⁴, and NR¹⁴R¹³, CH₂R¹⁴, C(O)R¹⁴, CO₂R¹⁴, C(O)NR¹⁴R¹³, SOR¹⁴, SO₂R¹⁴ and optionally substituted C1-C4 alkyl.~~
16. (Currently amended) A compound according to claim 15, wherein R¹¹ is selected from the group of ~~hydrogen, F, Cl, OR¹⁴ and SR¹⁴.~~
17. (Original) A compound according to claim 16, wherein R¹¹ is OR¹⁴.
18. (Original) A compound according to claim 1, wherein Z is O or N{R¹²}.
19. (Original) A compound according to claim 18, wherein Z is N{R¹²}.
20. (Original) A compound according to claim 18, wherein Z is O.
21. (Original) A compound according to claim 1, wherein n is 0 or 1.
22. (Original) A compound according to claim 21, wherein n is 0.

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23. (Original) A compound according to claim 1, wherein R¹² is selected from the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups may be optionally substituted.

24. (Original) A compound according to claim 23, wherein R¹² is selected from the group of hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted.

25. (Original) A compound according to claim 1, wherein R¹³ is selected from the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups may be optionally substituted.

26. (Original) A compound according to claim 25, wherein R¹³ is selected from the group of hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted.

27. (Original) A compound according to claim 1, wherein X is O or N{R¹⁴}.

28. (Original) A compound according to claim 27, wherein X is N{R¹⁴}.

29. (Original) A compound according to claim 28, wherein X is NH.

30. (Original) A compound according to claim 1, wherein R³ and R⁴ each independently is selected from the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted; or

R³ and R⁵ taken together form a bond; or

R⁴ and R⁶ taken together form a four to six membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may be optionally substituted.

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31. (Original) A compound according to claim 30, wherein R³ and R⁴ each independently is selected from the group of hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted.

32. (Original) A compound according to claim 1, wherein R⁵ and R⁷ each independently is selected from the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted; or

R⁵ and R⁷ taken together form a bond.

33. (Original) A compound according to claim 32, wherein R⁵ and R⁷ each independently is selected from the group of hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted.

34. (Original) A compound according to claim 1, wherein R⁶ and R⁸ each independently is selected from the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups may be optionally substituted; or

R⁶ and R⁸ taken together form a three to eight membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may be optionally substituted.

35. (Original) A compound according to claim 34, wherein R⁶ and R⁸ each independently is selected from the group of hydrogen, C₁ - C₄ alkyl, C₁ - C₄ haloalkyl, C₁ - C₄ heteroalkyl, heteroaryl and aryl, wherein alkyl, haloalkyl, heteroaryl and aryl may be optionally substituted; or

R⁶ and R⁸ taken together form a four to six membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may be optionally substituted.

36. (Original) A compound according to claim 1, wherein:

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R^1 is selected from the group of hydrogen, F, Cl, Br, I, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted;

R^2 is selected from the group of hydrogen, F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, C₁-C₆ alkyl; C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted; and

R^3 and R^4 each independently is selected from the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted.

37. (Original) A compound according to claim 36, wherein:

R^5 through R^8 each independently is selected from the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted; or

R^6 and R^8 taken together form a four to six membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may be optionally substituted.

38. (Original) A compound according to claim 37, wherein:

R^9 and R^{10} each independently is selected from the group of hydrogen, F, Cl, Br, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted;

R^{12} is selected from the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups may be optionally substituted; and

R^{14} is selected from the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted.

39. (Currently amended) A compound according to claim 38, wherein[:]

W is O or S;

X is O or N(R¹⁴);

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Y is O or S[;]
Z is O or N(R¹³); and
n is 0 or 1.

40. (Currently amended) A compound according to claim 1, wherein said compound is selected from the group of:

5,6,7,8-Tetrahydro-7,7-dimethyl-4-trifluoromethylpyridine[3,2-f]quinolin-2(1H)-one;
5,6,7,8-Tetrahydro-7,7-diethyl-4-trifluoromethylpyridine[3,2-f]quinolin-2(1H)-one;
7,8-Dihydro-7,7-dimethyl-4-trifluoromethylpyridine[3,2-f]quinolin-2(1H)-one;
5,6,7,8-Tetrahydro-7,7,8-trimethyl-4-trifluoromethylpyridine[3,2-f]quinolin-2(1H)-one;
8-Ethyl-5,6,7,8-tetrahydro-7,7-dimethyl-4-trifluoromethylpyridine[3,2-f]quinolin-2(1H)-one;
5,6,7,8-Tetrahydro-7,7-dimethyl-4-trifluoromethyl-8-propylpyridine[3,2-f]quinolin-2(1H)-one;
~~8-(2,2,2-Trifluoroethyl)-~~5,6,7,8-tetrahydro-7,7-dimethyl-4-trifluoromethylpyridine[3,2-f]quinolin-2(1H)-one;
6-Hydrazino-4-trifluoromethylquinolin-2(1H)-one;
6-Methyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
5-Isopropyl-6-methyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
5-Allyl-6-methyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
5-(4-Methoxyphenyl)-6-methyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
5-(3-Trifluoromethylphenyl)-6-methyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
4-Trifluoromethyl-5,6,7,8-tetrahydrocyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
4-Trifluoromethyl-5,6,7,8,9,10-hexahydrocycloheptano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
(±)-4c,5,6,7,7a(cis),8-Hexahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
(±)-6,6a,7,8,9,9a(cis)-Hexahydro-6-trifluoroethyl-4-trifluoromethylcyclopentano-[i]pyrrolo[2,3-g]quinolin-2(1H)-one;
(±)-4c,5,6,7,7a(cis),8-Hexahydro-8-ethyl-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

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(±)-6,6a,7,8,9,9a(cis)-Hexahydro-6-ethyl-4-trifluoromethylcyclopentano-[i]pyrrolo[2,3-g]quinolin-2(1H)-one;

(±)-5,6-Dihydro-5,6-cis-dimethyl-7-trifluoroethyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;

(±)-7,8-Dihydro-7,8-cis-dimethyl-6-trifluoroethyl-4-trifluoromethyl-6H-pyrrolo[2,3-g]quinolin-2(1H)-one;

(±)-4c,5,6,7,7a(cis),8-Hexahydro-8-propyl-4-trifluoromethylcyclopentano-[g]pyrrolo-[3,2-f]quinolin-2(1H)-one;

(±)-4c,5,6,7,7a(cis),8-Hexahydro-8-(3-furanyl methyl)-4-trifluoromethyl-cyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(±)-4c,5,6,7,7a(cis),8-Hexahydro-8-(3-thiophenemethyl)-4-trifluoromethyl-cyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(±)-4c,5,6,7,7a(cis),8-Hexahydro-8-(2-methylpropyl)-4-trifluoromethyl-cyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(±)-4c,5,6,7,7a(cis),8-Hexahydro-8-(2,2,2-chlorodifluoroethyl)-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(±)-4c,5,6,7,7a(cis),8-Hexahydro-8-cyclopropylmethyl-4-trifluoromethyl-cyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(±)-4c,5,6,7,7a(cis),8-Hexahydro-8-(2,2-dimethoxyethyl)-4-trifluoromethyl-cyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(±)-4c,5,6,7,8,8a(cis)-Hexahydro-9-(2,2,2-trifluoroethyl)-4-trifluoromethyl-9H-cyclohexano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(±)-4c,5,6,7,8,9,9a(cis),10-Octahydro-10-(2,2,2-trifluoroethyl)-4-trifluoromethyl-cycloheptano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(±)-5,6- cis-Dihydro-6-ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;

(±)-5,6- cis-Dihydro-5-butyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;

(±)-5,6- cis-Dihydro-5-(4-nitrophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;

(±)-5,6- cis-Dihydro-5-(4-dimethylaminophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;

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(\pm)-5,6- *cis*-Dihydro-5-(4-methoxyphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6- *cis*-Dihydro-5-(3-trifluoromethylphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6- *cis*-Dihydro-5-(4-fluorophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6-Dihydro-5-phenyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6- *cis*-Dihydro-5-(4-methoxyphenyl)-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6- *cis*-Dihydro-5-(4-methoxyphenyl)-6-methyl-7-(2,2-dimethoxyethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6- *cis*-Dihydro-5-isopropyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6-Dihydro-5-ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6-Dihydro-5-ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6-Dihydro-5-(2-ethoxycarbonylethyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Ethyl-5-methyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6- *cis*-Dihydro-5-methyl-6-ethyl-7-(2,2,2-trifluoroethyl)-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5,6-Dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

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5,6,7,8-Tetrahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano[*g*]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
8-Trifluoroethyl-4-trifluoromethyl-6,8-dihydrocyclopentano[*g*]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
9-Trifluoroethyl-4-trifluoromethyl-9*H*-benzo[*g*]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Trifluoroethyl-4-trifluoromethyl-6,7,8,9-tetrahydrocyclopentano[*i*]pyrrolo[2,3-*g*]quinolin-2(1*H*)-one;
5-(3-Trifluoromethylphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(4-Fluorophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(2-Ethoxycarbonylethyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
7-Ethyl-8-methyl-6-(2,2,2-trifluoroethyl)-4-trifluoromethyl-6*H*-pyrrolo[2,3-*g*]quinolin-2(1*H*)-one;
5-Hydroxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Methyl-6-(1-hydroxyethyl)-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Methyl-6-acetyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Formyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Acyloxyethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
2-Acyloxy-5-hydroxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinoline;
6-Ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Ethoxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-6-(1-Methoxyethyl)-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
7-Allyl-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;

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6-Ethyl-7-methyl-4-trifluoromethyl-5H-pyrrolo[2,3-f]quinolin-2(1H)-one;
7-(3-Trifluoromethylphenyl)-6-methyl-4-trifluoromethyl-5H-pyrrolo[2,3-f]quinolin-2(1H)-one;
7-(2-Hydroxyethyl)-6-methyl-4-trifluoromethyl-5H-pyrrolo[2,3-f]quinolin-2(1H)-one;
(+)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
(-)4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
4-Trifluoromethyl-6,7-dihydro-7,7,9-trimethyl pyrido[2,3-g]quinolin-2(1H)-one;
8-(2,2,2-Trifluoroethyl)-6,6,7,8-tetrahydro-5,7,7-trimethylpyrido[3,2-f]quinolin-2(1H)-one;
4,5,7-Tri(trifluoromethyl)pyrido[3,2-f]quinolin-2(1H)-one;
5,7-Bis(trifluoromethyl)pyrido[3,2-f]quinolin-2(1H)-one;
4-Trifluoromethyl-7-methyl-6,7,8,9-tetrahydropyrido[2,3-g]quinolin-2(1H)-one;
4-Trifluoromethyl-7,8-dihydro-6H-pyrrolo[2,3-g]quinolin-2(1H)-one;
4-Trifluoromethyl-5,6,7,8-tetrahydropyrido[2,3-g]quinolin-2(1H)-one;
4-Trifluoromethyl-7-methyl-6-propyl-6,7,8,9-tetrahydropyrido[2,3-g]quinolin-2(1H)-one;
4-Trifluoromethyl-7-methyl-6-cyclopropylmethyl-6,7,8,9-tetrahydropyrido[2,3-g]quinolin-2(1H)-one;
4-Trifluoromethyl-7-methyl-6-ethyl-6,7,8,9-tetrahydropyrido[2,3-g]quinolin-2(1H)-one;
4-Trifluoromethyl-7-methyl-6-(2,2,2-trifluoroethyl)-6,7,8,9-tetrahydropyrido[2,3-g]quinolin-2(1H)-one;
4-Trifluoromethyl-6-(2,2,2-trifluoroethyl)-6,7,8,9-tetrahydropyrido[2,3-g]quinolin-2(1H)-one;
4-Trifluoromethyl-6-propyl-6,7,8,9-tetrahydropyrido[2,3-g]quinolin-2(1H)-one;
4-Trifluoromethyl-6-ethyl-6,7,8,9-tetrahydropyrido[2,3-g]quinolin-2(1H)-one;
4-Trifluoromethyl-6-cyclopropylmethyl-6,7,8,9-tetrahydropyrido[2,3-g]quinolin-2(1H)-one;
6,7-Dihydro-8,8-dimethyl-4-(trifluoromethyl)-8H-pyrano[3,2-g]quinolin-2(1H)-one;
6,7-Dihydro-8,8,10-trimethyl-4-(trifluoromethyl)-8H-pyrano[3,2-g]quinolin-2(1H)-one;
(+) 6,7-Dihydro-6-ethyl-4-methyl-8H-pyrano[3,2-g]quinolin-2(1H)-one
(+) 7,8-Dihydro-8-ethyl-4-methyl-6H-pyrano[2,3-f]quinolin-2(1H)-one;
(+) 6,7-Dihydro-6-ethyl-4-trifluoromethyl-8H-pyrano[3,2-g]quinolin-2(1H)-one;

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(-)6,7-Dihydro-6-ethyl-4-trifluoromethyl-8H-pyran[3,2-g]quinolin-2(1H)-one;
 (+)6,7-Dihydro-6-ethyl-4-trifluoromethyl-8H-pyran[3,2-g]quinolin-2(1H)-one;
 (-)6,7-Dihydro-6-ethyl-3-fluoro-4-trifluoromethyl-8H-pyran[3,2-g]quinolin-2(1H)-one;
 (-)6,7-Dihydro-6-ethyl-4-trifluoromethyl-1-methyl-8H-pyran[3,2-g]quinolin-2(1H)-one;
 (-)6,7-Dihydro-6-ethyl-3-fluoro-4-trifluoromethyl-1-methyl-8H-pyran[3,2-g]quinolin-2(1H)-one;
 (-)6,7-Dihydro-6-ethyl-2,4-bis(trifluoromethyl)-8H-pyran[3,2-g]quinoline;
 6,8,8-Trimethyl-4-trifluoromethyl-8H-pyran[3,2-g]coumarin;
 6-Ethyl-8,8-dimethyl-4-trifluoromethyl-8H-pyran[3,2-g]coumarin;
 (\pm)-5,6-Dihydro-6-hydroxymethyl-4-trifluoromethylpyrrolo[3,2-f]quinolin-2(1H)-one;
 (\pm)-5,6-Dihydro-7-ethyl-6-hydroxymethyl-4-trifluoromethylpyrrolo[3,2-f]quinolin-2(1H)-one;
 7,8-Dihydro-6-(2,2,2-trifluoroethyl)-4-trifluoromethylpyrrolo[2,3-g]quinolin-2(1H)-one;
 6-(2,2,2-Trifluoroethyl)-4-trifluoromethylpyrrolo[2,3-g]quinolin-2(1H)-one;
 8-Chloro-6-(2,2,2-trifluoroethyl)-4-trifluoromethylpyrrolo[2,3-g]quinolin-2(1H)-one;
 5-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethylpyrrolo[3,2-f]quinolin-2(1H)-one;
 6-Formyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one; and
 5,6-Dimethyl-7-(2,2-difluorovinyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one.

41. (Currently amended) A compound according to claim 1, wherein said compound is selected from the group of:

8-Ethyl-5,6,7,8-tetrahydro-7,7-dimethyl-4-trifluoromethylpyridino[3,2-f]quinolin-2(1H)-one;
 5,6,7,8-Tetrahydro-7,7-dimethyl-4-trifluoromethyl-8-propylpyridino[3,2-f]quinolin-2(1H)-one;
 8-(2,2,2-Trifluoroethyl)-5,6,7,8-tetrahydro-7,7-dimethyl-4-trifluoromethyl-pyridino[3,2-f]quinolin-2(1H)-one;
 (\pm)-4c,5,6,7,7a(cis)-8-Hexahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
 (\pm)-6,6a,7,8,9,9a(cis)-Hexahydro-6-trifluoroethyl-4-trifluoromethylcyclopentano-[i]pyrrolo[2,3-g]quinolin-2(1H)-one;

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(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-ethyl-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-5,6-Dihydro-5,6-*cis*-dimethyl-7-trifluoroethyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-7,8-Dihydro-7,8-*cis*-dimethyl-6-trifluoroethyl-4-trifluoromethyl-6H-pyrrolo[2,3-g]quinolin-2(1H)-one;

(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-propyl-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-chlorodifluoroethyl)-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-cyclopropylmethyl-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-4c,5,6,7,8,8a(*cis*)-Hexahydro-9-(2,2,2-trifluoroethyl)-4-trifluoromethyl-9H-cyclohexano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-5,6-*cis*-Dihydro-6-ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-5,6-*cis*-Dihydro-5-butyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-5,6-Dihydro-5-ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-5,6-Dihydro-5-ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-5,6-*cis*-Dihydro-5-methyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;

5,6-Dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;

6-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;

6-Ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;

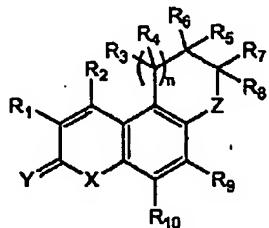
5-Ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;

5,6,7,8-Tetrahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

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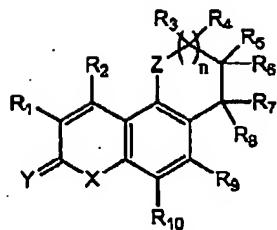
6-Trifluoroethyl-4-trifluoromethyl-6,7,8,9-tetrahydrocyclopentano[*i*]pyrrolo[2,3-g]quinolin-2(1*H*)-one;
 7-Ethyl-8-methyl-6-(2,2,2-trifluoroethyl)-4-trifluoromethyl-6*H*-pyrrolo[2,3-g]quinolin-2(1*H*)-one;
 6-Ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1*H*)-one;
 (+)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-f]quinolin-2(1*H*)-one; and
 (-)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-f]quinolin-2(1*H*)-one;
 8-(2,2,2-Trifluoroethyl)-5,6,7,8-tetrahydro-5,7,7-trimethylpyrido[3,2-f]quinolin-2(1*H*)-one;
 4-Trifluoromethyl-7-methyl-6-(2,2,2-trifluoroethyl)-6,7,8,9-tetrahydropyrido[2,3-g]quinolin-2(1*H*)-one;
 6,7-Dihydro-8,8-dimethyl-4-(trifluoromethyl)-8*H*-pyrano[3,2-g]quinolin-2(1*H*)-one;
 (-)-6,7-Dihydro-6-ethyl-4-trifluoromethyl-8*H*-pyrano[3,2-g]quinolin-2(1*H*)-one; and
 (+)-6,7-Dihydro-6-ethyl-4-trifluoromethyl-8*H*-pyrano[3,2-g]quinolin-2(1*H*)-one.

42. (Currently amended) A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound of formula:



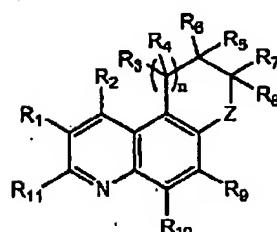
(I)

OR

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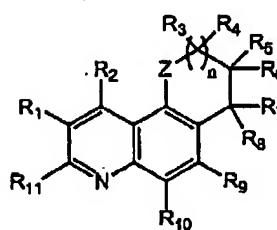
(II)

OR



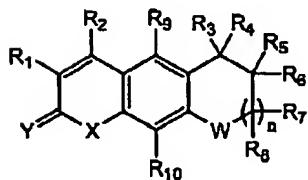
(III)

OR



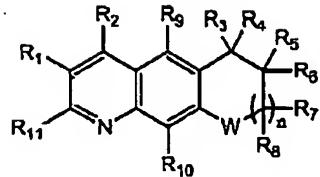
(IV)

OR



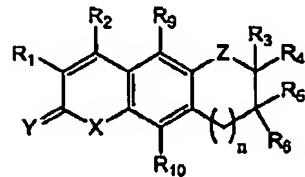
(V)

OR

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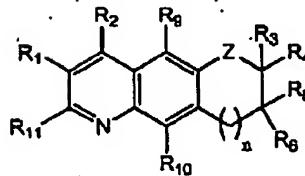
(VI)

OR



(VII)

OR



(VIII)

wherein:

R^1 is selected from the group of hydrogen, F, Cl, Br, I, NO₂, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted;

R^2 is selected from the group of hydrogen, F, Cl, Br, I, CH₃, CF₃, CHF₂, CH₂F, CF₂Cl, CN, CF₂OR¹², CH₂OR¹², OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl and C₂-C₈ alkynyl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl and alkynyl groups may be optionally substituted;

R^3 through R^8 each independently is selected from the group of hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkynyl, aryl, heteroaryl and arylalkyl groups may be optionally substituted; or

R^3 and R^5 taken together form a bond; or

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R⁵ and R⁷ taken together form a bond; or

R⁴ and R⁶ taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may optionally substituted; or

R⁶ and R⁸ taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may optionally substituted;

R⁹ and R¹⁰ each independently is selected from the group of hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2n}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups may be optionally substituted;

R¹¹ is selected from the group of hydrogen, F, Br, Cl, I, CN, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, OR¹⁴, NR¹⁴R¹³, and SR¹⁴, CH₂R¹⁴, C(O)R¹⁴, CO₂R¹⁴, C(O)NR¹⁴R¹³, SOR¹⁴ and SO₂R¹⁴, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted;

R¹² and R¹³ each independently is selected from the group of hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups may be optionally substituted;

R¹⁴ is selected from the group of hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups may be optionally substituted;

R¹⁵ and R¹⁶ each independently is selected from the group of hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted;

W is O or S;

X is selected from the group of O, S and N(R¹⁴);

Y is selected from the group of O, S, N(R¹²), and NO(R¹²) and CR₁₂R₁₃;

Z is selected from the group of O, S and N(R¹²);

n is 0, 1 or 2;

m is 0[,] or 1;

and/or a pharmaceutically acceptable salts thereof.

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43. (Original) A pharmaceutical composition according to claim 42, wherein the carrier is suitable for enteral, parenteral, suppository, or topical administration.

44. (Original) A pharmaceutical composition according to claim 42, wherein R¹ is selected from the group of hydrogen, F, Cl, Br, I, C₁ - C₆ alkyl, C₁ - C₆ haloalkyl and C₁ - C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted.

45. (Original) A pharmaceutical composition according to claim 44, wherein R¹ is selected from the group of hydrogen, F, Cl, C₁ - C₄ alkyl, C₁ - C₄ haloalkyl and C₁ - C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted.

46. (Original) A pharmaceutical composition according to claim 42, wherein R² is selected from the group of hydrogen, F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted.

47. (Original) A pharmaceutical composition according to claim 46, wherein R² is selected from the group of hydrogen, F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted.

48. (Original) A pharmaceutical composition according to claim 42, wherein R⁹ and R¹⁰ each independently is selected from the group of hydrogen, F, Cl, Br, C₁ - C₆ alkyl, C₁ - C₆ haloalkyl and C₁ - C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted.

49. (Original) A pharmaceutical composition according to claim 48, wherein R⁹ and R¹⁰ each independently is selected from the group of hydrogen, F and CH₃.

50. (Currently amended) A pharmaceutical composition according to claim 42, wherein R¹¹ is selected from the group of hydrogen, F, Br, Cl, CN, C₁-C₆ alkyl, C₁-C₆

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haloalkyl, C₁-C₆ heteroalkyl, OR¹⁴, NR¹⁴R¹³, and SR¹⁴, CH₂R¹⁴, C(O)R¹⁴, CO₂R¹⁴, C(O)NR¹⁴R¹³, SOR¹⁴ and SO₂R¹⁴, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted.

51. (Currently amended) A pharmaceutical composition according to claim 50, wherein R¹¹ is selected from the group of hydrogen, F, Cl, OR¹⁴, SR¹⁴ and NR¹⁴R¹³, CH₂R¹⁴, C(O)R¹⁴, CO₂R¹⁴, C(O)NR¹⁴R¹³, SOR¹⁴, SO₂R¹⁴ and optionally substituted C₁-C₄ alkyl.

52. (Original) A pharmaceutical composition according to claim 42, wherein Y and W each independently is O or S.

53. (Original) A pharmaceutical composition according to claim 42, wherein Z is O or N{R¹²}.

54. (Original) A pharmaceutical composition according to claim 42, wherein n is 0.

55. (Original) A pharmaceutical composition according to claim 42, wherein R¹² is selected from the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups may be optionally substituted.

56. (Original) A pharmaceutical composition according to claim 42, wherein X is O or N{R¹⁴}.

57. (Original) A pharmaceutical composition according to claim 42, wherein R³ and R⁴ each independently is selected from the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted; or

R³ and R⁵ taken together form a bond; or

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R⁴ and R⁶ taken together form a four to six membered carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may be optionally substituted.

58. (Original) A pharmaceutical composition according to claim 42, wherein R⁵ and R⁷ each independently is selected from the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted; or

R⁵ and R⁷ taken together form a bond.

59. (Original) A pharmaceutical composition according to claim 42, wherein R⁶ and R⁸ each independently is selected from the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups may be optionally substituted; or

R⁶ and R⁸ taken together form a three to eight membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may be optionally substituted.

60. (Original) A pharmaceutical composition according to claim 42, wherein: R¹ is selected from the group of hydrogen, F, Cl, Br, I, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted;

R² is selected from the group of hydrogen, F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, C₁-C₆ alkyl; C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted; and

R³ and R⁴ each independently is selected from the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted.

61. (Original) A pharmaceutical composition according to claim 60, wherein: R⁵ through R⁸ each independently is selected from the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted; or

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R⁶ and R⁸ taken together form a four to six membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may be optionally substituted.

62. (Original) A pharmaceutical composition according to claim 61, wherein:
R⁹ and R¹⁰ each independently is selected from the group of hydrogen, F, Cl, Br, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted;
R¹² is selected from the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups may be optionally substituted; and
R¹⁴ is selected from the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl and heteroalkyl groups may be optionally substituted.

63. (Currently amended) A pharmaceutical composition according to claim 62, wherein:

W is O or S;
X is O or N(R¹⁴);
Y is O or S[;]
Z is O or N(R¹²); and
n is 0 or 1.

64. (Withdrawn) A method of treating an individual having a condition mediated by an androgen receptor comprising administering to said individual a pharmaceutically effective amount of a compound according to any one of claims 1, 40 or 41.

65. (Withdrawn) A method according to claim 64, wherein said compound is represented by formula (I).

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66. (Withdrawn) A method according to claim 64, wherein said compound is represented by formula (II).

67. (Withdrawn) A method according to claim 64, wherein said compound is represented by formula (III).

68. (Withdrawn) A method according to claim 64, wherein said compound is represented by formula (IV).

69. (Withdrawn) A method according to claim 64, wherein said compound is represented by formula (V).

70. (Withdrawn) A method according to claim 64, wherein said compound is represented by formula (VI).

71. (Withdrawn) A method according to claim 64, wherein said compound is represented by formula (VII).

72. (Withdrawn) A method according to claim 64, wherein said compound is represented by formula (VIII).

73. (Withdrawn) A method according to claim 64, wherein said condition is selected from the group of acne, male-pattern baldness, impotence, sexual dysfunction, wasting diseases, hirsutism, hypogonadism, prostatic hyperplasia, osteoporosis, cancer cachexia and hormone-dependent cancers.

74. (Withdrawn) A method according to claim 64, wherein said condition is alleviated with a therapy selected from the group of male hormone replacement therapy, female androgen replacement therapy and stimulation of hematopoiesis.

75. (Withdrawn) A method of modulating an androgen receptor in an individual comprising administering an androgen receptor modulating effective amount of a compound according to any one of claims 1, 40 or 41.

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76. (Withdrawn) A method according to claim 64, wherein said individual has a condition mediated by an androgen receptor

77. (Withdrawn) A method according to claim 76, wherein said condition is selected from the group of acne, male-pattern baldness, impotence, sexual dysfunction, wasting diseases, hirsutism, hypogonadism, prostatic hyperplasia, osteoporosis, cancer cachexia and hormone-dependent cancers.

78. (Withdrawn) A method according to claim 76, wherein said condition is alleviated with a therapy selected from the group of male hormone replacement therapy, female androgen replacement therapy and stimulation of hematopoiesis.

79. (Withdrawn) A method according to claim 75, wherein said modulation is activation.

80. (Withdrawn) A method according to claim 76, wherein said individual has a condition mediated by an androgen receptor.

81. (Withdrawn) A method according to claim 80, wherein said condition is selected from the group of acne, male-pattern baldness, impotence, sexual dysfunction, wasting diseases, hirsutism, hypogonadism, prostatic hyperplasia, osteoporosis, cancer cachexia and hormone-dependent cancers.

82. (Withdrawn) A method according to claim 80, wherein said condition is alleviated with a therapy selected from the group of male hormone replacement therapy, female androgen replacement therapy and stimulation of hematopoiesis..

83. (Withdrawn) A method according to claim 79, wherein said compound provides 50% maximal activation of AR at a drug concentration of less than 100 nM.

84. (Withdrawn) A method according to claim 79, wherein said compound provides 50% maximal activation of AR at a drug concentration of less than 50 nM.

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85. (Withdrawn) A method according to claim 79, wherein said compound provides 50% maximal activation of AR at a drug concentration of less than 20 nM.

86. (Withdrawn) A method according to claim 79, wherein said compound provides 50% maximal activation of AR at a drug concentration of less than 10 nM.

87. (Withdrawn) A method according to claim 75, wherein said modulation is inhibition.

88. (Withdrawn) A method according to claim 87, wherein said individual has a condition mediated by an androgen receptor.

89. (Withdrawn) A method according to claim 88, wherein said condition is selected from the group of acne, male-pattern baldness, impotence, sexual dysfunction, wasting diseases, hirsutism, hypogonadism, prostatic hyperplasia, osteoporosis, cancer cachexia and hormone-dependent cancers.

90. (Withdrawn) A method according to claim 88, wherein said condition is alleviated with a therapy selected from the group of male hormone replacement therapy, female androgen replacement therapy and stimulation of hematopoiesis.

91. (Withdrawn) A method according to claim 87, wherein said compound provides 50% maximal inhibition of AR at a drug concentration of less than 100 nM.

92. (Withdrawn) A method according to claim 87, wherein said compound provides 50% maximal inhibition of AR at a drug concentration of less than 50 nM.

93. (Withdrawn) A method according to claim 87, wherein said compound provides 50% maximal inhibition of AR at a drug concentration of less than 20 nM.

94. (Withdrawn) A method according to claim 87, wherein said compound provides 50% maximal inhibition of AR at a drug concentration of less than 10 nM.

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95. (Withdrawn) A method of treating cancer, comprising administering to a patient in need thereof an effective amount of a compound according to any one of claims 1, 40 or 41.

96. (Withdrawn) A method of determining the presence of an androgen receptor (AR) in a cell or cell extract comprising: (a) labeling a compound according to any one of claims 1, 40 or 41; (b) contacting the cell or cell extract with said labeled compound; and (c) testing the contacted cell or cell extract to determine the presence of AR.

97. (Withdrawn) A method for purifying a sample containing an androgen receptor *in vitro*, comprising: (a) contacting said sample with a compound according to any one of claims 1, 40 or 41; (b) allowing said compound to bind to said androgen receptor to form a bound compound/receptor combination; and (c) isolating said bound compound/receptor combination.

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PATENTREMARKS

This Amendment and Response is submitted in response to the Office Action mailed June 16, 2003. Applicants petition under 37 C.F.R. §1.136(a) for a two month extension of time and hereby authorize the Commissioner to charge the fee required under 37 C.F.R. §1.17(a) to our Deposit Account No. 50-2613. Applicants respectfully request reconsideration and withdrawal of all outstanding rejections.

Claims 1-97 are pending. Claims 64-97 have been withdrawn. Claims 1-63 are under consideration. Claims 1, 14, 15, 16, 39-42, 50, 51, and 63 have been amended. Support for the amendments to claims 1, 14, 15, 16, 39-42, 50, 51, and 63 may be found throughout the specification and, in particular, in those claims as originally filed. Therefore, no new matter has been added by reason of these amendments.

In a Restriction Requirement mailed January 13, 2003, the Examiner required election to one of 13 allegedly distinct inventions. See Restriction Requirement at pages 2-3. In a Response to Restriction Requirement, filed May 13, 2003, Applicants provisionally elected group III, with traverse. The Examiner identified that group as "Claims 1-63 in part, drawn to a compound wherein X=NR¹⁴, n=0, classified in class 546, subclass 85 and the compositions thereof." Restriction Requirement at page 2. The Examiner also required an election of "a species within the elected invention." Id at page 4. Applicants provisionally elected the compound identified in the specification as number 153. See Response to Restriction Requirement at page 4.

In the pending Office Action, the Examiner searched only structural formulae I-IV. See Action at page 2. However, Group III, as defined by the Examiner also comprises certain compounds of structural formulae V-VIII. Moreover, the Examiner indicated that claims 12, 13, and 52 are "directed to compounds outside of the species formula (I)-(IV)"

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and consequently were "withdrawn from further consideration as being drawn to the non-elected inventions." Action at page 2. Applicants respectfully traverse. Claims 12, 13, and 52 comprise subject matter within the scope of Group III. Applicants remind the Examiner of the requirement to search a reasonable number of species, if a generic or linking claim (e.g., claim 1) is found allowable. See MPEP § 806.04.

The Rejection of Claims Under 35 U.S.C. § 102(b)

Claims 1, 2, 4-11, 14-16, 18-19, 21-26 and 30-38 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Kost (SU 548608, abstract). According to the Office Action "Pyrrolo[4,5-f]quinolines of formula I, Pyrrolo[5,4-f]quinolines of formula II, and the compound of RN 232-85-9DP, are encompassed by the instant claims." (Office Action mailed June 16, 2003, p.3). Without acquiescing to the rejection and solely to expedite prosecution, Applicants have amended claims 1, 14, 15, and 16. Amended claims 1, 14, 15, and 16 are not anticipated by Kost. Claims 2, 4-11, 18, 19, 21-26, and 30-38 ultimately depend from the amended claims. Thus, the rejection is moot. Accordingly, Applicants respectfully request that this rejection be withdrawn.

Claims 1, 2, 4-11, 14-16, 18-19, 21-26 and 30-38 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Grandberg (SU 241441, abstract). According to the Office Action "the compound of RN 23758-94-3DP is encompassed by the instant claims." (Office Action mailed June 16, 2003, p.3). Without acquiescing to the rejection and solely to expedite prosecution, Applicants have amended claims 1, 14, 15, and 16. Amended claims 1, 14, 15, and 16 are not anticipated by Grandberg. Claims 2, 4-11, 18, 19, 21-26, and 30-38 ultimately depend from the amended claims. Thus, the rejection is moot. Accordingly, Applicants respectfully request that this rejection be withdrawn.

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Claims 1, 2, 4-11, 14-16, 18-19, 21-26 and 30-38 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Gryaznov (abstract). According to the Office Action "The compounds of RN 232-85-9, 118644-71-6, [and] 118644-75-0, are encompassed by the instant claims." (Office Action mailed June 16, 2003, p.3). Without acquiescing to the rejection and solely to expedite prosecution, Applicants have amended claims 1, 14, 15, and 16. Amended claims 1, 14, 15, and 16 are not anticipated by Gryaznov. Claims 2, 4-11, 18, 19, 21-26, and 30-38 ultimately depend from the amended claims. Thus, the rejection is moot. Accordingly, Applicants respectfully request that this rejection be withdrawn.

Claims 1, 2, 4-8, 18-19, 21-26 and 30-38 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Yudin (abstract). According to the Office Action "The compounds of formula VI, the compounds of RN 72793-29-4, [and] 72393-30-7, are encompassed by the instant claims." (Office Action mailed June 16, 2003, p.3). Without acquiescing to the rejection and solely to expedite prosecution, Applicants have amended claim 1. Amended claims 1 is not anticipated by Yudin. Claims 2, 4-8, 18, 19, 21-26, and 30-38 ultimately depend from the amended claims. Thus, the rejection is moot. Accordingly, Applicants respectfully request that this rejection be withdrawn.

Claims 1, 2, 4-11, 14-17, and 21-39 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Chapman (*J. Chem. Soc.* 17:2334-9 (1970); *Chem. Abstract*). According to the Office Action "The compounds of RN 29948-24-1, 29948-25-2, 29970-37-4, 29970-48-7, 29970-50-1, 29970-51-2, [and] 233-03-4, are encompassed by instant claims 1, 2, 4-11, 14-16, 21-26, [and] 30-38. Compound III (page 2336) is encompassed by instant claims 1, 2, 4-11, 14-17, [and] 21-39." (Office Action mailed June 16, 2003, pp.3-4). Without acquiescing to the rejection and solely to expedite prosecution,

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Applicants have amended claims 1, 14, 15, 16, and 39. Amended claims 1, 14, 15, 16, and 39 are not anticipated by Chapman. Claims 2, 4-11, 17, 18, 19, and 21-38 ultimately depend from the amended claims. Thus, the rejection is moot. Accordingly, Applicants respectfully request that this rejection be withdrawn.

Claims 1-11, 14-16, 18-19, and 21-38 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Yoshikawa (abstract). According to the Office Action "The compounds of RN 232-85-9, 95196-74-0, 96418-17-6, [and] 97789-00-9 are encompassed by the instant claims." (Office Action mailed June 16, 2003, p.4). Without acquiescing to the rejection and solely to expedite prosecution, Applicants have amended claims 1, 14, 15, and 16. Amended claims 1, 14, 15, and 16 are not anticipated by Yoshikawa. Claims 2-11, 18, 19, and 21-38 ultimately depend from the amended claims. Thus, the rejection is moot. Accordingly, Applicants respectfully request that this rejection be withdrawn.

Claims 1, 2, 4-11, 14-18, 20-51 and 53-63 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Kyotani (5576324). According to the Office Action "The compounds of the Examples wherein 'bond by —' is double bond 'd' (columns 37-46) are encompassed by the instant claims. The aminoethyl substituent reads on the instant 'optionally substituted alkyl'. The compounds if the Examples wherein 'bond by —' is a double bond 'd' (columns 55-74) are encompassed by the instant claims. The Y substituent reads on the instant 'optionally substituted alkyl'. (Office Action mailed June 16, 2003, p.4). Without acquiescing to the rejection and solely to expedite prosecution, Applicants have amended claims 1, 14, 15, 16, 39-42, 50, 51, and 63. Amended claims 1, 14, 15, 16, 39-42, 50, 51, and 63 are not anticipated by Kyotani. Claims 2, 4-11, 17, 18, 20-38, 43-49, and 53-62 ultimately depend from the amended claims. Thus, the rejection is moot. Accordingly, Applicants respectfully request that this rejection be withdrawn.

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PATENTThe Rejection of Claims Under 35 U.S.C. § 102(a)

Claims 1-11, 14-16, 18-19, 21-26, 30-38, 42-45, 48-51 and 53-62 were rejected under 35 U.S.C. § 102(a) as allegedly anticipated by Ferlin (abstract). According to the Office Action "The compounds with RN 288570-10-5, [and] 288570-11-6 are encompassed by the instant claims 1, 2, 4-11, 14-16, 18-19, 21-26, [and] 30-38. The anti-neoplastic compounds of RN 232-85-9, 95196-74-0, 96418-17-6, 97789-00-9, and the composition thereof, are encompassed by the instant claims 1-11, 14-16, 18, 19, 21-26, 30-38, 42-45, 48-51, [and] 53-62. The phenyl substituted with methansulfonamide reads on the instant 'optionally substituted aryl'." (Office Action mailed June 16, 2003, p.4). Without acquiescing to the rejection and solely to expedite prosecution, Applicants have amended claims 1, 14, 15, 16, 42, 50, and 51. Amended claims 1, 14, 15, 16, 42, 50, and 51 are not anticipated by Ferlin. Claims 2-11, 18, 19, 21-26, 30-38, 43-45, 48, 49, and 53-62 ultimately depend from the amended claims. Thus, the rejection is moot. Accordingly, Applicants respectfully request that this rejection be withdrawn.

Objection to Claims 40-41

The compounds of claims 40-41, were allowable objected to by the Examiner as being dependent upon a rejected claim. However, because claims 40-41, as presently amended, depend from independent claim 1, which is allowable in its current amended form, Applicants respectfully request withdrawal of this objection.

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CONCLUSION

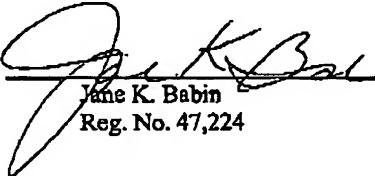
Applicants respectfully submit that all of the pending claims are in condition for allowance and such is respectfully requested. The Commissioner is hereby authorized to charge \$420.00 to our Deposit Account No. 50-2613 for the fee required under 37.C.F.R. §1.17(a)(3) for the two month extension of time. The Commissioner is hereby authorized to charge any additional fees which may be required, or to credit any overpayment, to Deposit Account No. 50-2613.

In view of the foregoing remarks, Applicants believe that the entire application is in condition for allowance and such action is respectfully requested. If it is believed that prosecution can be assisted thereby, the Examiner is invited to contact Applicants' undersigned Representative at the below-listed telephone number.

Respectfully submitted,

Paul, Hastings, Janofsky & Walker LLP

Dated: November 17, 2003


Jane K. Babin
Reg. No. 47,224

JKB:jc

Paul, Hastings, Janofsky & Walker LLP
3579 Valley Centre Drive
San Diego, CA 92130
(858) 720-2500



Attorney's Docket No.: 18202-017001 (1081)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Lin Zhi *et al.*
Serial No. : 10/080,926
Confirmation No.: 7786
Filed : February 22, 2002
Title : **TRICYCLIC ANDROGEN RECEPTOR MODULATOR COMPOUNDS
AND METHODS**

Art Unit : 1625
Examiner : Evelyn Huang
Customer No.: 20985

Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

**PRELIMINARY AMENDMENT AND REQUEST FOR CONTINUED
EXAMINATION PURSUANT TO 37 C.F.R. § 1.114**

Dear Sir:

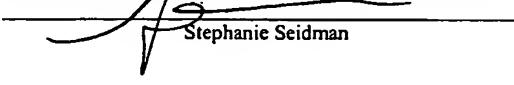
Responsive to the Office Action, mailed January 21, 2004, and further to a Notice of Appeal, filed June 21, 2004 and an Advisory Action, mailed July 6, 2004, entry of the following amendments and consideration of the following remarks are respectfully requested.

Amendments to the claims are reflected in the listing of the claims which begin on page 2 of this paper.

Remarks/Arguments begin on page 22 of this paper.

CERTIFICATE OF MAILING BY "EXPRESS MAIL"
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Date of Deposit: January 21, 2005

I hereby certify that this paper is being deposited with the United States Postal "Express Mail Post Office to Addressee" Service under 37 CFR §1.10 on the date indicated above and is addressed to: Mail Stop RCE, Commissioner for Patents, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA, 22313-1450.

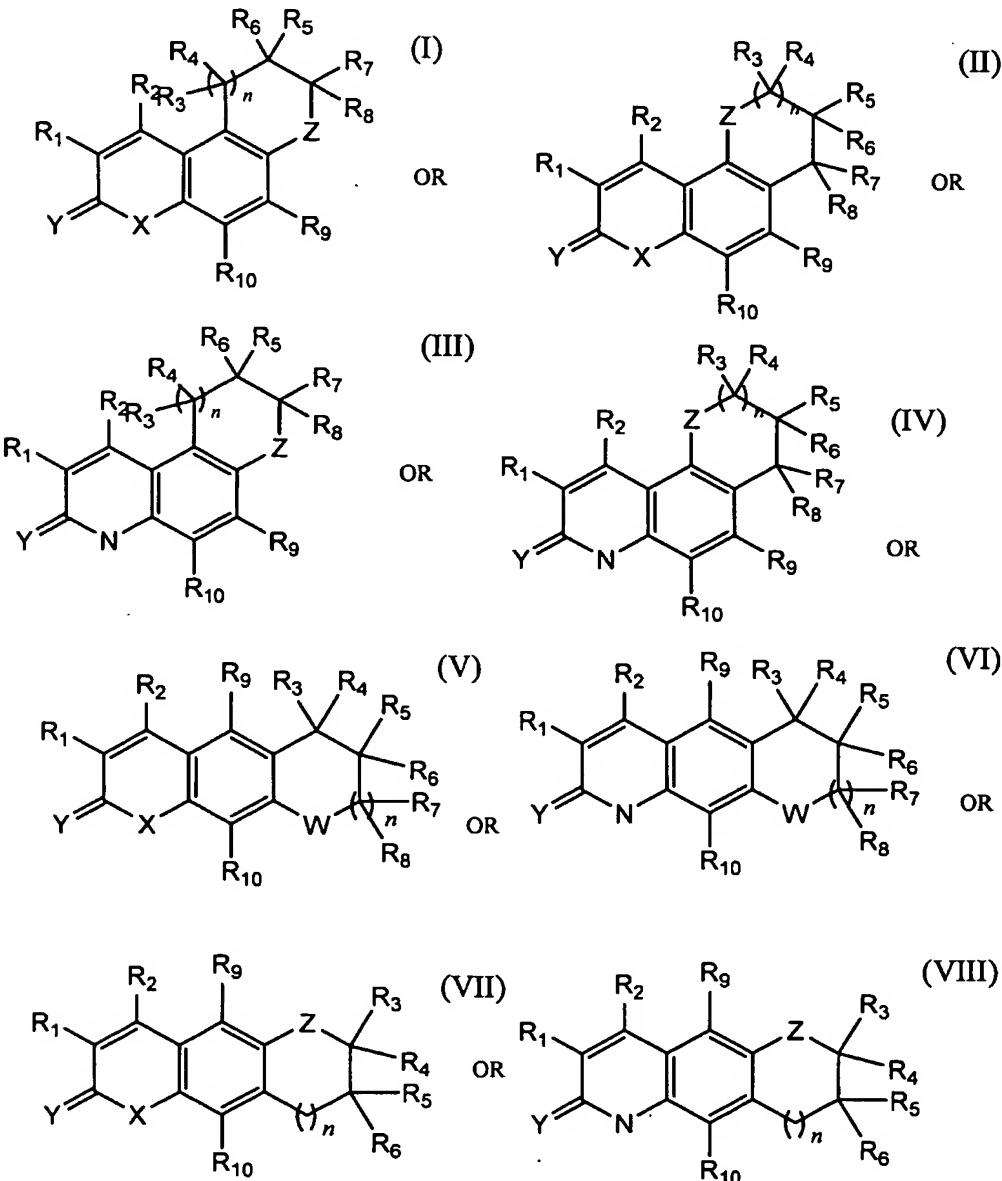

Stephanie Seidman

AMENDMENTS TO THE CLAIMS:

Claims 1-17, 23-26, 30-52, 55 and 57-63 and 98-107 are pending. Claims 18-22, 27-29, 53, 54, 56 and 64-97 are cancelled herein without prejudice or disclaimer. Claims 1, 2, 4-9, 10, 12, 14, 23-26, 30-38, 40-42, 44-48, 50, 52, 55 and 57-63 are amended. Claims 98-107 are added herein. This listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS:

1. (Currently amended) A compound of the formula:



wherein:

R¹ is selected from among the group of hydrogen, F, Cl, Br, I, NO₂, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹², substituted C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted;

R² is selected from among the group of hydrogen, F, Cl, Br, I, CH₃, CF₃, CHF₂, CH₂F, CF₂Cl, CN, CF₂OR¹², CH₂OR, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, substituted C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl and C₂-C₈ alkynyl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted;

R³ through R⁸ each independently is selected from among the group of hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups may be are optionally substituted; or

R³ and R⁵ taken together form a bond; or

R⁵ and R⁷ taken together form a bond; or

R⁴ and R⁶ taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may be is optionally substituted; or

R⁶ and R⁸ taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may be is optionally substituted;

R⁹ and R¹⁰ each independently is selected from among the group of hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2m}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups may be are optionally substituted;

R¹¹ is selected from among the group of F, Br, Cl, I, CN, OR¹⁴, NR¹⁴R¹³, and SR¹⁴;

R¹² and R¹³ each independently is selected from the group of hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups may be are optionally substituted;

R¹⁴ is selected from among the group of hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups may be are optionally substituted;

R^{15} and R^{16} each independently is selected from among the group of hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted;

W is O or S;

X is N{R¹⁴};

Y is selected from among the group of O, S, N{R¹²} and NO{R¹²};

Z is N{R¹²};

n is 0; and

m is 0 or 1;

or a pharmaceutically acceptable salt thereof.

2. (Currently amended) A compound according to claim 1, wherein R² is selected from among the group of hydrogen, F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, substituted C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted.

3. (Original) A compound according to claim 1, wherein R² is selected from among the group of CF₂OR¹², CH₂OR¹², OR¹², SR¹², SOR¹², SO₂R¹² and NR¹²R¹³.

4. (Currently amended) A compound according to claim 1, wherein R² is selected from among the group of hydrogen, F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, substituted C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ heteroalkyl, C₂-C₄ alkenyl and C₂-C₄ alkynyl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted.

5. (Currently amended) A compound according to claim 4, wherein R² is selected from among the group of hydrogen, F, Cl, CF₃, CF₂Cl, CF₂H, CFH₂ and optionally substituted C₁-C₄ alkyl.

6. (Currently amended) A compound according to claim 1, wherein R⁹ and R¹⁰ each independently is selected from among hydrogen, F, Cl, Br, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted

7. (Currently amended) A compound according to claim 6, wherein R⁹ and R¹⁰ each independently is selected from among the group of hydrogen, F, Cl, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted.

8. (Currently amended) A compound according to claim 7, wherein R⁹ and R¹⁰ each independently is selected from among the group of hydrogen, F and CH₃.

9. (Currently amended) A compound according to claim 1, wherein R¹ is selected from among the group of hydrogen, F, Cl, Br, I, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted.

10. (Currently amended) A compound according to claim 9, wherein R¹¹ is selected from among the group of hydrogen, F, Cl, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted.

11. (Original) A compound according to claim 9, wherein R¹ is hydrogen or F.

12. (Currently amended) A compound according to claim 1, wherein Y and W each independently is O or S.

13. (Original) A compound according to claim 12, wherein Y and W are each is O.

14. (Currently amended) A compound according to claim 1, wherein R¹¹ is selected from among the group of F, Br, Cl, CN, OR¹⁴, NR¹⁴R¹³ and SR¹⁴.

15. (Currently amended) A compound according to claim 14, wherein R¹¹ is selected from among the group of F, Cl, OR¹⁴, SR¹⁴ and NR¹⁴R¹³.

16. (Currently amended) A compound according to claim 15, wherein R¹¹ is selected from among the group of F, Cl, OR¹⁴ and SR¹⁴.

17. (Original) A compound according to claim 16, wherein R¹¹ is OR¹⁴.

18-22. (Cancelled)

23. (Currently amended) A compound according to claim 1, wherein R¹² is selected from among the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups may be are optionally substituted.

24. (Currently amended) A compound according to claim 23, wherein R¹² is selected from among the group of hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted.

25. (Currently amended) A compound according to claim 1, wherein R¹³ is selected from among the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted.

26. (Currently amended) A compound according to claim 25, wherein R^{13} is selected from among the group of hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted.

27-29. (Cancelled)

30. (Currently amended) A compound according to claim 1, wherein:
 R^3 and R^4 each independently is selected from among the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted; or
 R^3 and R^5 taken together form a bond; or
 R^4 and R^6 taken together form a four to six membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may be are optionally substituted.

31. (Currently amended) A compound according to claim 30, wherein R^3 and R^4 each independently is selected from among the group of hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted.

32. (Currently amended) A compound according to claim 1, wherein:
 R^5 and R^7 each independently is selected from among the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or
 R^5 and R^7 taken together form a bond.

33. (Currently amended) A compound according to claim 32, wherein R^5 and R^7 each independently is selected from among the group of hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted.

34. (Currently amended) A compound according to claim 1, wherein:
 R^6 and R^8 each independently is selected from among the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups may be are optionally substituted; or

R^6 and R^8 taken together form a three to eight membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may be is optionally substituted.

35. (Currently amended) A compound according to claim 34, wherein:
 R^6 and R^8 each independently is selected from among the group of hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ heteroalkyl, heteroaryl and aryl, wherein alkyl, haloalkyl, heteroaryl and aryl ~~may be~~ are optionally substituted; or

R^6 and R^8 taken together form a four to six membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring ~~may be~~ is optionally substituted.

36. (Currently amended) A compound according to claim 1, wherein:

R^1 is selected from among the group of hydrogen, F, Cl, Br, I, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups ~~may be~~ are optionally substituted;

R^2 is selected from among the group of hydrogen, F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, substituted C₁-C₆ alkyl; C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups ~~may be~~ are optionally substituted; and

R^3 and R^4 each independently is selected from among the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups ~~may be~~ are optionally substituted.

37. (Currently amended) A compound according to claim 36, wherein:

R^5 through R^8 each independently is selected from among the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups ~~may be~~ are optionally substituted; or

R^6 and R^8 taken together form a four to six membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring ~~may be~~ are optionally substituted.

38. (Currently amended) A compound according to claim 37, wherein:

R^9 and R^{10} each independently is selected from among the group of hydrogen, F, Cl, Br, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups ~~may be~~ are optionally substituted;

R^{12} is selected from among the group of hydrogen, C₁-C₆ alkyl C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups ~~may be~~ are optionally substituted; and

R¹⁴ is selected from among the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted.

39. (Previously presented) A compound according to claim 38, wherein Y is O or S.
40. (Currently amended) A compound according to claim 1, wherein said compound is selected from among the group of:

6-Methyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
5-Isopropyl-6-methyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
5-Allyl-6-methyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
5-(4-Methoxyphenyl)-6-methyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
5-(3-Trifluoromethylphenyl)-6-methyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
4-Trifluoromethyl-5,6,7,8-tetrahydrocyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
4-Trifluoromethyl-5,6,7,8,9,10-hexahydrocycloheptano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano[g]pyrrole-[3,2-f]quinolin-2(1H)-one;
(±)-6,6a,7,8,9,9a(*cis*)-Hexahydro-6-trifluoroethyl-4-trifluoromethylcyclopentano[i]pyrrole-[2,3-g]quinolin-2(1H)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-ethyl-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-f]-quinolin-2(1H)-one;
(±)-6,6a,7,8,9,9a(*cis*)-Hexahydro-6-ethyl-4-trifluoromethylcyclopentano-[i]pyrrolo[2,3-g]-quinolin-2(1H)-one;
(±)-5,6-Dihydro-5,6-*cis*-dimethyl-7-trifluoroethyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]-quinolin-2(1H)-one;
(±)-7,8-Dihydro-7,8-*cis*-dimethyl-6-trifluoroethyl-4-trifluoromethyl-6H-pyrrolo[2,3-g]-quinolin-2(1H)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-propyl-4-trifluoromethylcyclopentano-[g]pyrrolo-[3,2-f]quinolin-2(1H)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(3-furanylmethyl)-4 trifluoromethylcyclopentano[g]-pyrrolo[3,2-f]quinolin-2(1H)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(3-thiophenemethyl)-4-trifluoromethylcyclopentano[g]-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2-methylpropyl)-4-trifluoromethylcyclopentano[g]-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-chlorodifluoro-ethyl)-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-cyclopropylmethyl-4-trifluoromethylcyclopentano[g]-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2-dimethoxyethyl)-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-4c,5,6,7,8,8a(*cis*)-Hexahydro-9-(2,2,2-trifluoroethyl)-4-trifluoromethyl-9*H*-cyclohexano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-4c,5,6,7,8,9,9a(*cis*),10-Octahydro-10-(2,2,2-trifluoroethyl)-4-trifluoromethylcycloheptano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-5,6-*cis*-Dihydro-6-ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-5,6-*cis*-Dihydro-5-butyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-5,6-*cis*-Dihydro-5-(4-nitrophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-5,6-*cis*-Dihydro-5-(4-dimethylaminophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-5,6-*cis*-Dihydro-5-(4-methoxyphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-5,6-*cis*-Dihydro-5-(3-trifluoromethylphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-5,6-*cis*-Dihydro-5-(4-fluorophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-5,6-Dihydro-5-phenyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]-quinolin-2(1H)-one;

(\pm)-5,6-*cis*-Dihydro-5-(4-methoxyphenyl)-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]-quinolin-2(1H)-one;

(\pm)-5,6-*cis*-Dihydro-5-(4-methoxyphenyl)-6-methyl-7-(2,2-dimethoxyethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;

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(\pm)-5,6-cis-Dihydro-5-isopropyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(\pm)-5,6-Dihydro-5-ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(\pm)-5,6-Dihydro-5-ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(\pm)-5,6-Dihydro-5-(2-ethoxycarbonylethyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

6-Ethyl-5-methyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(\pm)-5,6-cis-Dihydro-5-methyl-6-ethyl-7-(2,2,2-trifluoroethyl)-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

5,6-Dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

6-Ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

6-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

6-Ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

5-Ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

5-Ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

5,6,7,8-Tetrahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;

8-Trifluoroethyl-4-trifluoromethyl-6,8-dihydrocyclopentano[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

9-Trifluoroethyl-4-trifluoromethyl-9*H*-benzo[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

6-Trifluoroethyl-4-trifluoromethyl-6,7,8,9-tetrahydrocyclopentano[i]-pyrrolo[2,3-g]-quinolin-2(1*H*)-one;

5-(3-Trifluoromethylphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

5-(4-Fluorophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

5-(2-Ethoxycarbonylethyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

7-Ethyl-8-methyl-6-(2,2,2-trifluoroethyl)-4-trifluoromethyl-6*H*-pyrrolo-[2,3-*g*]quinolin-2(1*H*)-one;

5-Hydroxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;

5-Methyl-6-(1-hydroxyethyl)-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;

5-Methyl-6-acetyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

5-Formyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

5-Acetyloxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;

2-Acetyloxy-5-hydroxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinoline;

6-Ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

5-Ethoxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;

(+)-6-(1-Methoxyethyl)-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

7-Allyl-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;

6-Ethyl-7-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;

7-(3-Trifluoromethylphenyl)-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;

7-(2-Hydroxyethyl)-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;

(+)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano-[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(-)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano-[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(±)-5,6-Dihydro-6-hydroxymethyl-4-trifluoromethylpyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(±)-5,6-Dihydro-7-ethyl-6-hydroxymethyl-4-trifluoromethylpyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

7,8-Dihydro-6-(2,2,2-trifluoroethyl)-4-trifluoromethylpyrrolo[2,3-*g*]quinolin-2(1*H*)-one;

6-(2,2,2-Trifluoroethyl)-4-trifluoromethylpyrrolo[2,3-*g*]quinolin-2(1*H*)-one;

8-Chloro-6-(2,2,2-trifluoroethyl)-4-trifluoromethylpyrrolo[2,3-*g*]quinolin-2(1*H*)-one;

5-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethylpyrrolo[3,2-f]quinolin-2(1H)-one;
6-Formyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one; and
5,6-Dimethyl-7-(2,2-difluorovinyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one.

41. (Previously presented) A compound according to claim 1, wherein said compound is selected from the group consisting of:

(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano-[g]pyrrolo-[3,2-f]quinolin-2(1H)-one;

(\pm)-6,6a,7,8,9,9a(*cis*)-Hexahydro-6-trifluoroethyl-4-trifluoromethylcyclopentano[i]pyrrolo-[2,3-g]quinolin-2(1H)-one;

(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-ethyl-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-f]-quinolin-2(1H)-one;

(\pm)-5,6-Dihydro-5,6-*cis*-dimethyl-7-trifluoroethyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]-quinolin-2(1H)-one;

(\pm)-7,8-Dihydro-7,8-*cis*-dimethyl-6-trifluoroethyl-4-trifluoromethyl-6*H*-pyrrolo[2,3-g]-quinolin-2(1H)-one;

(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-propyl-4-trifluoromethylcyclopentano-[g]pyrrolo-[3,2-f]quinolin-2(1H)-one;

(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-chlorodifluoroethyl)-4-trifluoromethylcyclopentano-[g]-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-cyclopropylmethyl-4-trifluoromethyl-cyclopentano[g]-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-4c,5,6,7,8,8a(*cis*)-Hexahydro-9-(2,2,2-trifluoroethyl)-4-trifluoromethyl-9*H*-cyclohexano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-5,6-*cis*-Dihydro-6-ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-5,6-*cis*-Dihydro-5-butyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-5,6-Dihydro-5-ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-5,6-Dihydro-5-ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1H)-one;

(35)-5,6-cis-Dihydro-5-methyl-6-ethyl-7-(2,2,2-trifluoroethyl)-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;

5,6-Dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

6-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

6-Ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

5-Ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

5,6,7,8-Tetrahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;

6-Trifluoroethyl-4-trifluoromethyl-6,7,8,9-tetrahydrocyclopentano[i]pyrrolo[2,3-*g*]-quinolin-2(1*H*)-one;

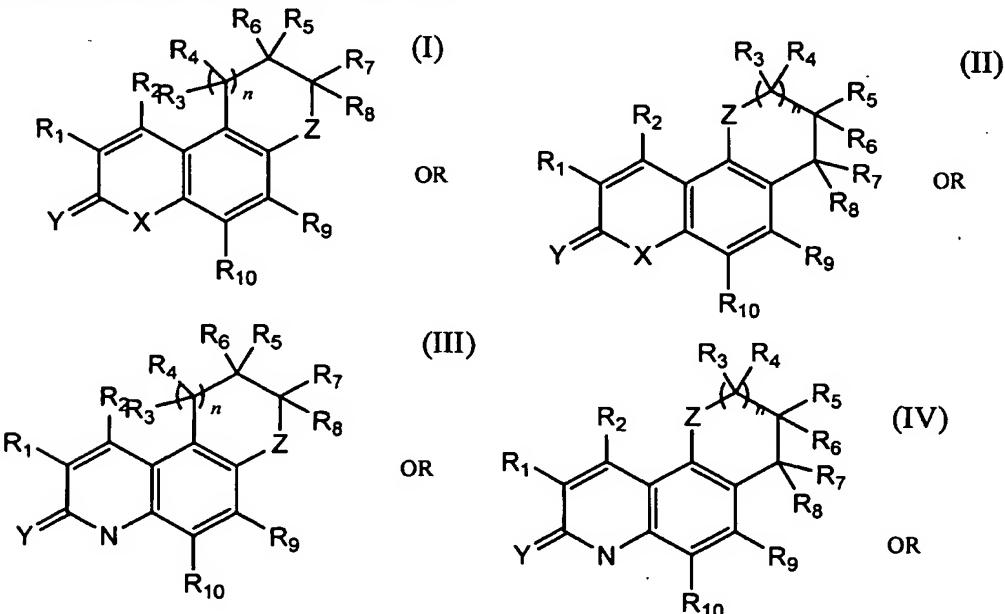
7-Ethyl-8-methyl-6-(2,2,2-trifluoroethyl)-4-trifluoromethyl-6*H*-pyrrolo[2,3-*g*]quinolin-2(1*H*)-one;

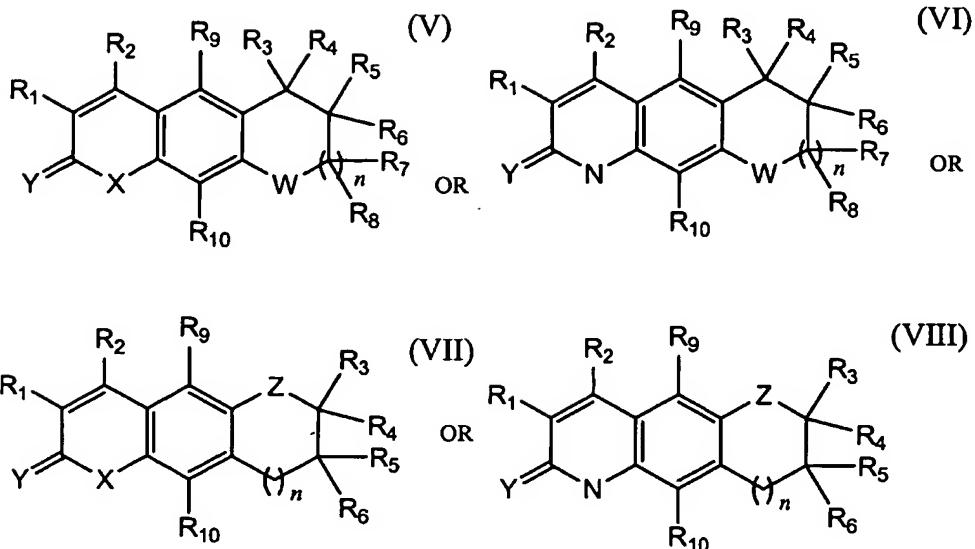
6-Ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(+)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano-[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one; and

(-)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one.

42. (Currently amended) A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound of formula:





wherein:

R¹ is selected from among the group of hydrogen, F, Cl, Br, I, NO₂, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted;

R² is selected from among the group of hydrogen, F, Cl, Br, I, CH₃, CF₃, CHF₂, CH₂F, CF₂Cl, CN, CF₂OR¹², CH₂OR¹², OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, substituted C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl and C₂-C₈ alkynyl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl and alkynyl groups may be are optionally substituted;

R³ through R⁸ each independently is selected from among the group of hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups may be are optionally substituted; or

R³ and R⁵ taken together form a bond; or

R⁵ and R⁷ taken together form a bond; or

R⁴ and R⁶ taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may be is optionally substituted; or

R⁶ and R⁸ taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may be is optionally substituted;

R⁹ and R¹⁰ each independently is selected from among the group of hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2m}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups may be are optionally substituted;

R¹¹ is selected from among the group of hydrogen, F, Br, Cl, I, CN, OR¹⁴, NR¹⁴R¹³ and SR¹⁴;

R¹² and R¹³ each independently is selected from among the group of hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups may be are optionally substituted;

R¹⁴ is selected from among the group of hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups may be are optionally substituted;

R¹⁵ and R¹⁶ each independently is selected from among the group of hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted;

W is O or S;

X is N{R¹⁴};

Y is selected from among the group of O, S, N{R¹²} and N{OR¹²};

Z is N{R¹²};

n is 0; and

m is 0 or 1;

or a pharmaceutically acceptable salt thereof.

43. (Original) A pharmaceutical composition according to claim 42, wherein the carrier is suitable for enteral, parenteral, suppository, or topical administration.

44. (Currently amended) A pharmaceutical composition according to claim 42, wherein R¹ is selected from among the group of hydrogen, F, Cl, Br, I, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted.

45. (Currently amended) A pharmaceutical composition according to claim 44, wherein R¹ is selected from among the group of hydrogen, F, Cl, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted.

46. (Currently amended) A pharmaceutical composition according to claim 42, wherein R² is selected from among the group of hydrogen, F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, substituted C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted.

47. (Currently amended) A pharmaceutical composition according to claim 46, wherein R² is selected from among the group of hydrogen, F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, substituted C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted.

48. (Currently amended) A pharmaceutical composition according to claim 42, wherein R⁹ and R¹⁰ each independently is selected from among the group of hydrogen, F, Cl, Br, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted.

49. (Currently amended) A pharmaceutical composition according to claim 48, wherein R⁹ and R¹⁰ each independently is selected from among the group of hydrogen, F and CH₃.

50. (Currently amended) A pharmaceutical composition according to claim 42, wherein R¹¹ is selected from among the group of F, Br, Cl, CN, OR¹⁴, NR¹⁴R¹³ and SR¹⁴.

51. (Currently amended) A pharmaceutical composition according to claim 50, wherein R¹¹ is selected from among the group of F, Cl, OR¹⁴, SR and NR¹⁴R¹³.

52. (Currently amended) A pharmaceutical composition according to claim 42, wherein Y and W each independently is O or S.

53. (Cancelled)

54. (Cancelled)

55. (Currently amended) A pharmaceutical composition according to claim 42, wherein R¹² is selected from among the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups may be are optionally substituted.

56. (Cancelled)

57. (Currently amended) A pharmaceutical composition according to claim 42, wherein:

R^3 and R^4 each independently is selected from among the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted; or

R^3 and R^5 taken together form a bond; or

R^4 and R^6 taken together form a four to six membered carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may be is optionally substituted.

58. (Currently amended) A pharmaceutical composition according to claim 42, wherein:

R^5 and R^7 each independently is selected from among the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted; or

R^5 and R^7 taken together form a bond.

59. (Currently amended) A pharmaceutical composition according to claim 42, wherein:

R^6 and R^8 each independently is selected from among the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups may be are optionally substituted; or

R^6 and R^8 taken together form a three to eight membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may be is optionally substituted.

60. (Currently amended) A pharmaceutical composition according to claim 42, wherein:

R^1 is selected from among the group of hydrogen, F, Cl, Br, I, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted;

R^2 is selected from among the group of hydrogen, F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, substituted C₁-C₆ alkyl; C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted; and

[[R3]] R^3 and [[R4]] R^4 each independently is selected from among the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ C₁-C₆ haloalkyl and C₁-C₆ C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted.

61. (Currently amended) A pharmaceutical composition according to claim 60, wherein:

R^5 through R^8 each independently is selected from among the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted; or

R⁶ and R⁸ taken together form a four to six membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring may be is optionally substituted.

62. (Currently amended) A pharmaceutical composition according to claim 61, wherein:
R⁹ and R¹⁰ each independently is selected from among the group of hydrogen, F, Cl, Br, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted;

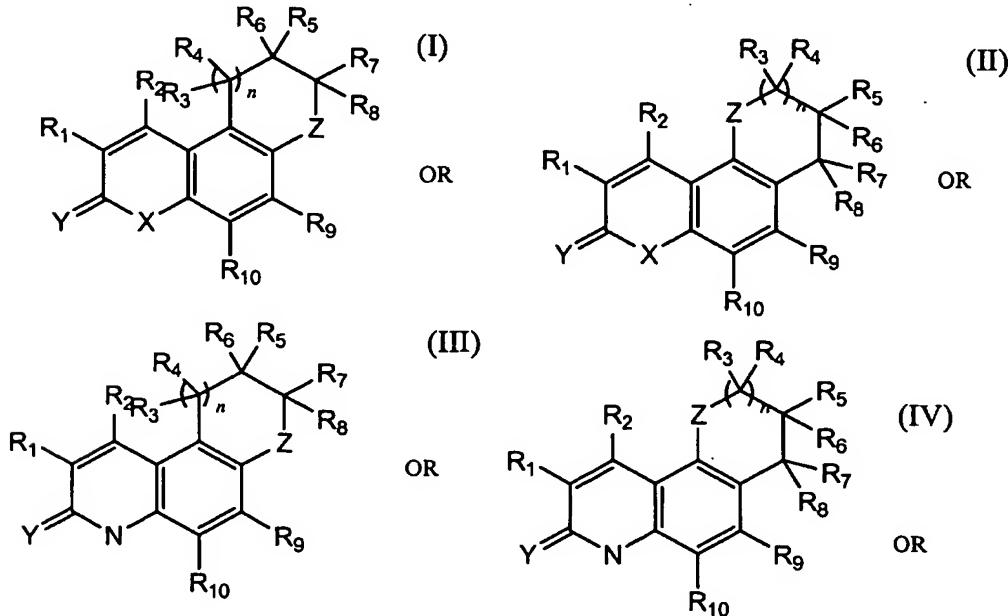
R¹² is selected from among the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups may be are optionally substituted; and

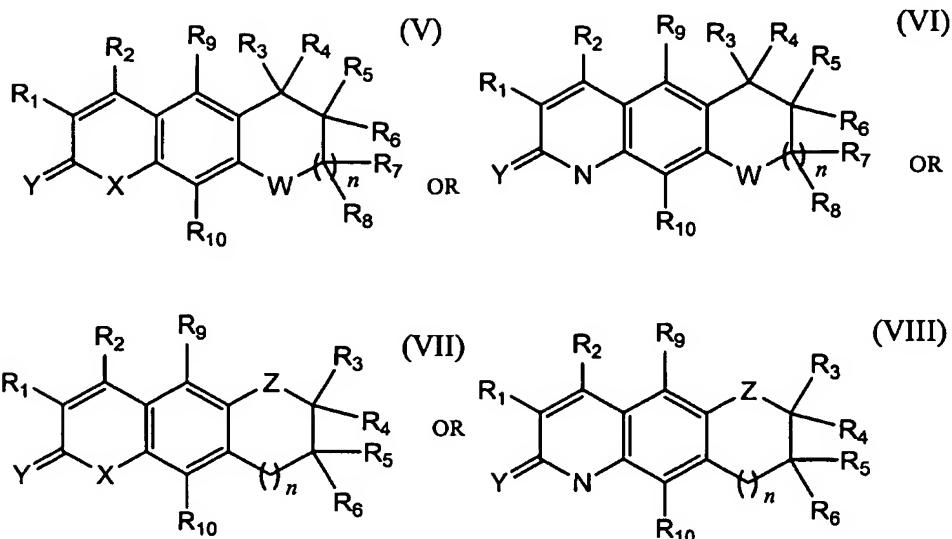
R¹⁴ is selected from among the group of hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl and heteroalkyl groups may be are optionally substituted.

63. (Currently amended) A pharmaceutical composition according to claim 62, wherein [:]
Y is O or S.

64-97. (Cancelled)

98. (New) A compound of formula:





wherein:

R^1 is selected from among hydrogen, F, Cl, Br, I, NO₂, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R^2 is selected from among F, Cl, Br, I, CF_3 , CHF_2 , CH_2F , CF_2Cl , CN, CF_2OR^{12} , CH_2OR , OR^{12} , SR^{12} , SOR^{12} , SO_2R^{12} , $NR^{12}R^{13}$, alkyl selected from among ethyl, *n*-propyl, isopropyl, *n*-butyl, isobutyl, *sec*-butyl, *tert*-butyl, *tert*-amyl, pentyl, hexyl, heptyl, octyl, C_1-C_8 haloalkyl, C_1-C_8 heteroalkyl, C_2-C_8 alkenyl and C_2-C_8 alkynyl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted;

R^3 through R^8 each independently is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted; or

R^3 and R^5 taken together form a bond; or

R^5 and R^7 taken together form a bond; or

R^4 and R^6 taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted; or

R^6 and R^8 taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted:

R⁹ and R¹⁰ each independently is selected from among hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2m}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

R¹¹ is selected from among F, Br, Cl, I, CN, OR¹⁴, NR¹⁴R¹³, and SR¹⁴;

R¹² and R¹³ each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

R¹⁴ is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

R¹⁵ and R¹⁶ each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

W is O or S;

X is N{R¹⁴};

Y is selected from the group of O, S, N{R¹²} and NO{R¹²};

Z is N{R¹²};

n is 0; and

m is 0 or 1;

or a pharmaceutically acceptable salt thereof.

99. (New) A compound according to claim 98, wherein the carrier is suitable for enteral, parenteral, suppository, or topical administration.

100. (New) A compound according to claim 98, wherein R¹ is selected from among hydrogen, F, Cl, Br, I, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

101. (New) A compound according to claim 98, wherein R⁹ and R¹⁰ each independently is selected from among hydrogen, F, Cl, Br, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

102. (New) A compound according to claim 98, wherein R¹¹ is selected from among F, Cl, CN, OR¹⁴, NR¹⁴R¹³ and SR¹⁴.

103. (New) A compound according to claim 98, wherein Y is O or S.

104. (New) A compound according to claim 98, wherein R¹² is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted.

105. (New) A compound according to claim 98, wherein:

R³ and R⁴ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

R³ and R⁵ taken together form a bond; or

R⁴ and R⁶ taken together form a four to six membered carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted.

106. (New) A compound according to claim 42, wherein:

R⁵ and R⁷ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

R⁵ and R⁷ taken together form a bond.

107. (New) A compound according to claim 42, wherein:

R⁶ and R⁸ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted; or

R⁶ and R⁸ taken together form a three to eight membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted.

REMARKS

A check for \$2950 for the fees for filing of an RCE (\$790) and for the fee for a five-month extension of time (\$2160) accompanies this response. Any fees that may be due in connection with this application during its pendency may be charged to Deposit Account No. 06-1050. If a Petition for extension of time is needed, this paper is to be considered such Petition.

Claims 1-17, 23-26, 30-52, 55 and 57-63 and 98-107 are pending. Claims 18-22, 27-29, 53, 54 and 56 are cancelled herein without prejudice or disclaimer. Claims 64-97, which have been deemed withdrawn, are cancelled herein without prejudice or disclaimer. Applicant expressly reserves the right to file divisional application(s) to the subject matter of the cancelled claims. Claims 1, 2, 4-9, 10, 12, 14, 23-26, 30-38, 40-42, 44-48, 50, 52, 55 and 57-63 are amended. Claims 98-107 are added herein.

Claims 1, 2, 4, 5, 36, 42 and 47 are amended herein to more distinctly claim the subject matter. Basis for the amendment can be found throughout the specification and claims as originally filed (for example, see page 10, lines 7-17).

Claims 1, 2, 6, 7, 9, 10, 23-26, 30-38, 42, 44-48, 55 and 57-62 are amended to replace the recitation "may be optionally" with the recitation "is optionally" or "are optionally" as appropriate in order to more distinctly claim the subject matter. Claims 12 and 52 are amended to recite "Y is O or S" to more distinctly claim the subject matter, basis for which is found throughout the specification and claims as originally filed (for example, see page 23, column 2, row 7). Claims 14 and 50 are amended to more distinctly claim the subject matter, basis for which is found throughout the specification (for example, see page 21, row 4). Claims 40, 60 and 63 are amended to correct minor formatting or typographical errors. No new matter is added.

Basis for added claim 98 can be found throughout the specification as filed (for example, original claim 1; see also page 2, line 15 through page 7, line 1). Basis for added claims 99, 100, 101, 102, 103, 104, 105, 106 and 107 can be found throughout the specification and claims as originally filed (for example, see original claims 43, 44, 48, 50, 52, 55, 57, 58 and 59, respectively).

No new matter is added.

Response to Examiner's Arguments in the Advisory Action

The Examiner alleges that claims 12, 13 and 52 are directed to compounds outside of the elected species formulae (I)-(IV). Applicant respectfully submits that pending claims 12,

13 and 52 read on the elected species. For example, claims 12 and 52 are directed to an embodiment where Y is O or S, and claim 13 is directed to an embodiment where Y is O. The elected species, represented by Structure 15 of Scheme II, has an oxygen at the Y position. Thus, claims 12, 13 and 52 read on the elected species. Applicant respectfully requests that claims 12, 13 and 52 be rejoined with the elected group.

**THE REJECTION OF CLAIMS 18, 20, 21, 27, 53 AND 56 UNDER 35 U.S.C. § 112,
SECOND PARAGRAPH**

Claims 18, 20, 21, 27, 53 and 56 are rejected as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter. The Examiner alleges that there is no antecedent basis in base claim 1 or 42 for the recitation "Z is O."

Applicant respectfully submits that none of claims 21, 27 or 56 includes the recitation "Z is O." Thus, the rejection of claims 21, 27 and 56 is without merit. Claims 18, 20 and 53 are cancelled herein rendering the rejection of these claims moot.

THE OBJECTION TO CLAIMS 19, 22 AND 28 UNDER 37 C.F.R. 1.75

Claims 19, 22 and 28 are objected to under 37 C.F.R. 1.75 as allegedly being a substantial duplicate of claim 1 because the limitations as set forth in claims 19, 22 and 28 do not further limit the base claim. Applicant respectfully submits that the objection is moot in light of the cancellation of claims 19, 22 and 28 herein.

THE REJECTION OF CLAIMS 1, 2, 4-11, 14-19 and 21-39 UNDER 35 U.S.C. §102(b)

Claims 1, 2, 4-11, 14-19 and 21-39 are rejected under 35 U.S.C. § 102(b) as anticipated by Yamashkin *et al.* (Chemistry of Heterocyclic Compounds) because Yamashkin *et al.* allegedly discloses in RN 243669-00-3, 243669-02-5, 243669-04-7 and 243669-06-9 compounds encompassed by the claimed subject matter where R² is CH₃.

This rejection is respectfully traversed. Applicant respectfully submits that claims 18, 19, 21, 22 and 27-29 are cancelled herein without prejudice or disclaimer. Thus, the rejection as applied to these claims is moot.

RELEVANT LAW

Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. *In re Spada*, 15 USPQ2d 1655 (Fed. Cir, 1990), *In re Bond*, 15 USPQ 1566 (Fed. Cir. 1990), *Soundscriber Corp. v. U.S.*, 360 F.2d 954, 148 USPQ 298, 301, adopted 149 USPQ 640 (Ct. Cl.) 1966. See, also, *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir.), cert. denied, 110 S.Ct. 154 (1989).

The mere naming a compound in a reference without more cannot constitute a description of the compound. To hold otherwise, "lists of thousands of theoretically possible compounds could be generated and published, which assuming it would be within the level of skill in art to make them, would bar a patent to the actual discoverer of a named compound no matter how beneficial to mankind it might be." Listing of specific compounds with nothing more is mere speculation about their potential or theoretical existence and thus not a description within the meaning of 102. *In re Wiggins* 488 F.2d 538, 179 USPQ 421, 425 (CCPA 1973).

THE CLAIMS

Claim 1 is directed to a compound of formula (I) – (VIII) where

R¹ is selected from among hydrogen, F, Cl, Br, I, NO₂, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R² is selected from among F, Cl, Br, I, CF₃, CHF₂, CH₂F, CF₂Cl, CN, CF₂OR¹², CH₂OR, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, substituted C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl and C₂-C₈ alkynyl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted;

R³ through R⁸ each independently is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted; or

R³ and R⁵ taken together form a bond; or

R⁵ and R⁷ taken together form a bond; or

R⁴ and R⁶ taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted; or

R⁶ and R⁸ taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted;

R⁹ and R¹⁰ each independently is selected from among hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2m}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl,

C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

R¹¹ is selected from among F, Br, Cl, I, CN, OR¹⁴, NR¹⁴R¹³, and SR¹⁴;

R¹² and R¹³ each independently is selected from the group of hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

R¹⁴ is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

R¹⁵ and R¹⁶ each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

W is O or S; X is N{R¹⁴}; Y is selected from among O, S, N{R¹²} and NO{R¹²}; Z is N{R¹²}; n is 0; and m is 0 or 1; or a pharmaceutically acceptable salt thereof.

Claims 2, 4-11, 14-19 and 21-39 ultimately depend from claim 1.

DIFFERENCES BETWEEN THE CLAIMED SUBJECT MATTER AND THE DISCLOSURE OF YAMASHKIN *ET AL.*

In order to be an effective anticipatory reference, the reference must be enabling (must teach how to make and use the product). Applicant respectfully submits that Yamashkin *et al.* is an abstract that merely sets forth the compounds. The provided reference does not disclose a use for the compounds or methods to make the compounds. Thus, Yamashkin *et al.* does not anticipate the claims as filed or as pending.

Notwithstanding, in order to expedite prosecution, but without acquiescing to the rejection, claims 1, 2, 4, 5 and 36 are amended herein. Pending claims 1, 2, 4, 5 and 36 include compounds where R² is a substituted C₁-C₈ alkyl group. Yamashkin *et al.* does not disclose compounds where R² is a substituted C₁-C₈ alkyl group. Thus, the compounds encompassed by pending claims 1, 2, 4, 5 and 36 are not anticipated by Yamashkin *et al.* Claims 2, 4-11, 14-19 and 21-39 ultimately depend from claim 1. Hence, Yamashkin *et al.* does not anticipate any of claims 1, 2, 4-11, 14-17, 23-26 and 30-39. Applicant respectfully requests that the rejection be reconsidered and withdrawn.

THE REJECTION OF CLAIMS 1, 2, 4-11, 14-19 and 21-39 UNDER 35 U.S.C. §102(b)

Claims 1, 2, 4-11, 14-19 and 21-39 are rejected under 35 U.S.C. § 102(b) as anticipated by El-Desoky *et al.* (*Zeitschrift fuer Naturforschung*) because the compound with the RN 216073-29-9 in El-Desoky *et al.* allegedly is encompassed by the claimed subject matter where R² is hydrogen.

This rejection is respectfully traversed. Applicant respectfully submits that claims 18, 19, 21, 22 and 27-29 are cancelled herein without prejudice or disclaimer. Thus, the rejection as applied to these claims is moot.

RELEVANT LAW

See related section above.

THE CLAIMS

See related section above.

DIFFERENCES BETWEEN THE CLAIMED SUBJECT MATTER AND THE DISCLOSURE OF EL-DESOKY ET AL.

As discussed above, in order to be an effective anticipatory reference, the reference must be enabling (must teach how to make and use the product). Applicant respectfully submits that El-Desoky *et al.* is an abstract that merely sets forth the compounds. The provided reference does not disclose a use for the compounds or methods to make the compounds. Thus, El-Desoky *et al.* does not anticipate the original or pending claims.

Notwithstanding, in order to expedite prosecution, but without acquiescing to the rejection, claims 1, 2, 4, 5 and 36 are amended herein. Pending claims 1, 2, 4, 5 and 36 do not encompass compounds where R² is hydrogen. The compounds disclosed by El-Desoky *et al.* have a hydrogen at the position corresponding to R² of the instant claims. Thus, the compounds disclosed by El-Desoky *et al.* do not anticipate the compounds encompassed by pending claims 1, 2, 4, 5 and 36. Claims 2, 4-11, 14-19 and 21-39 ultimately depend from claim 1. Hence, El-Desoky *et al.* does not anticipate any of claims 1, 2, 4-11, 14-17, 23-26 and 30-39. Applicant respectfully requests that the rejection be reconsidered and withdrawn.

THE REJECTION OF CLAIMS 1, 2, 4-11, 14-19 and 21-39 UNDER 35 U.S.C. §102(b)

Claims 1, 2, 4-11, 14-19 and 21-39 are rejected under 35 U.S.C. § 102(b) as anticipated by Majmudar *et al.* (*Journal of Chemical Research, Synopses*) because Majmudar *et al.* allegedly discloses compounds encompassed by the claimed subject matter where R² is hydrogen.

Applicant : Lin Zhi *et al.*
Serial No. : 10/080,926
Filed : February 22, 2002

Attorney's Docket No.: 18202-017001 / 1081
PRELIMINARY AMENDMENT AND RCE

This rejection is respectfully traversed. Applicant respectfully submits that claims 18, 19, 21, 22 and 27-29 are cancelled herein without prejudice or disclaimer. Thus, the rejection as applied to these claims is moot.

RELEVANT LAW

See related section above.

THE CLAIMS

See related section above.

DIFFERENCES BETWEEN THE CLAIMED SUBJECT MATTER AND THE DISCLOSURE OF MAJMUDAR *ET AL.*

As discussed above, in order to be an effective anticipatory reference, the reference must be enabling (must teach how to make and use the product). Applicant respectfully submits that Majmudar *et al.* is an abstract that merely sets forth the compounds. The provided reference does not disclose a use for the compounds or methods to make the compounds. Thus, Majmudar *et al.* does not anticipate the original or pending claims.

Notwithstanding, in order to expedite prosecution, but without acquiescing to the rejection, claims 1, 2, 4, 5 and 36 are amended herein. Pending claims 1, 2, 4, 5 and 36 do not encompass compounds where R² is hydrogen. The compounds disclosed by Majmudar *et al.* have a hydrogen at the position corresponding to R² of the instant claims. Thus, the compounds disclosed by Majmudar *et al.* do not anticipate the compounds encompassed by pending claims 1, 2, 4, 5 and 36. Claims 2, 4-11, 14-19 and 21-39 ultimately depend from claim 1. Hence, Majmudar *et al.* does not anticipate any of claims 1, 2, 4-11, 14-17, 23-26 and 30-39. Applicant respectfully requests that the rejection be reconsidered and withdrawn.

THE REJECTION OF CLAIMS 1, 2, 4-11, 14-19 and 21-39 UNDER 35 U.S.C. §102(b)

Claims 1, 2, 4-11, 14-19 and 21-39 are rejected under 35 U.S.C. § 102(b) as anticipated by Yamashkin *et al.* (Khimiya Geterotsiklicheskih Soedinenii) because Yamashkin *et al.* allegedly discloses in RN 86269-88-7 and 86269-91-2 compounds encompassed by the claimed subject matter where R² is CH₃.

This rejection is respectfully traversed. Applicant respectfully submits that claims 18, 19, 21, 22 and 27-29 are cancelled herein without prejudice or disclaimer. Thus, the rejection as applied to these claims is moot.

RELEVANT LAW

See related section above.

THE CLAIMS

See related section above.

Applicant : Lin Zhi *et al.*
Serial No. : 10/080,926
Filed : February 22, 2002

Attorney's Docket No.: 18202-017001 / 1081
PRELIMINARY AMENDMENT AND RCE

DIFFERENCES BETWEEN THE CLAIMED SUBJECT MATTER AND THE DISCLOSURE OF YAMASHKIN *ET AL.*

As discussed above, in order to be an effective anticipatory reference, the reference must be enabling (must teach how to make and use the product). Applicant respectfully submits that Yamashkin *et al.* an abstract that merely sets forth the compounds. The provided reference does not disclose a use for the compounds or methods to make the compounds. Thus, Yamashkin *et al.* does not anticipate the original or pending claims.

Notwithstanding, in order to expedite prosecution, but without acquiescing to the rejection, claims 1, 2, 4, 5 and 36 are amended herein. Pending claims 1, 2, 4, 5 and 36 include compounds where R² is a substituted C₁-C₈ alkyl group. Yamashkin *et al.* does not disclose compounds where R² is a substituted C₁-C₈ alkyl group. Thus, the compounds encompassed by pending claims 1, 2, 4, 5 and 36 are not anticipated by Yamashkin *et al.* Claims 2, 4-11, 14-19 and 21-39 ultimately depend from claim 1. Hence, Yamashkin *et al.* does not anticipate any of claims 1, 2, 4-11, 14-17, 23-26 and 30-39. Applicant respectfully requests that the rejection be reconsidered and withdrawn.

THE REJECTION OF CLAIMS 1, 2, 4-11, 14-19 and 21-39 UNDER 35 U.S.C. §102(b)

Claims 1, 2, 4-11, 14-19 and 21-39 are rejected under 35 U.S.C. § 102(b) as anticipated by Akhvlediani *et al.* (Zhurnal Organicheskoi Khimii) because Akhvlediani *et al.* allegedly discloses compounds with the RN 80077-05-0 and 80104-38-7 which allegedly are encompassed by the claimed subject matter where R² is hydrogen.

This rejection is respectfully traversed. Applicant respectfully submits that claims 18, 19, 21, 22 and 27-29 are cancelled herein without prejudice or disclaimer. Thus, the rejection as applied to these claims is moot.

RELEVANT LAW

See related section above.

THE CLAIMS

See related section above.

DIFFERENCES BETWEEN THE CLAIMED SUBJECT MATTER AND THE DISCLOSURE OF AKHVLEDIANI *ET AL.*

As discussed above, in order to be an effective anticipatory reference, the reference must be enabling (must teach how to make and use the product). Applicant respectfully submits that Akhvlediani *et al.* is an abstract that merely sets forth the compounds. The

provided reference does not disclose a use for the compounds or methods to make the compounds. Thus, Akhvlediani *et al.* does not anticipate the original or pending claims.

Notwithstanding, in order to expedite prosecution, but without acquiescing to the rejection, claims 1, 2, 4, 5 and 36 are amended herein. Pending claims 1, 2, 4, 5 and 36 do not encompass compounds where R² is hydrogen, and thus are not anticipated by Akhvlediani *et al.* Claims 2, 4-11, 14-19 and 21-39 ultimately depend from claim 1. Thus, Akhvlediani *et al.* does not anticipate any of claims 1, 2, 4-11, 14-17, 23-26 and 30-39. Applicant respectfully requests that the rejection be reconsidered and withdrawn.

THE REJECTION OF CLAIMS 1-11, 14-19, 21-38, 42-51 and 53-62 UNDER 35 U.S.C. §103(a)

Claims 1-11, 14-19, 21-38, 42-51 and 53-62 are rejected under 35 U.S.C. §103(a) as being unpatentable over Adams (WO 00/12502), because Adams allegedly teaches a pyrroloquinoline compound for treating obesity having a hydrogen-substituted alkyl on the pyrrolo nitrogen and teaches that hydrogen, halogen, alkoxy, aryloxy and alkylthio are optional choices. The Examiner alleges that one of ordinary skill in the art would have been motivated at the time of application to replace the hydrogen with the alternative halogen, alkoxy, aryloxy or alkylthio groups to arrive at the instantly claimed subject matter.

RELEVANT LAW

In order to set forth a prima facie case of obviousness under 35 U.S.C. §103: (1) there must be some teaching, suggestion or incentive supporting the combination of cited references to produce the claimed invention (*ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 USPQ 329, 933 (Fed. Cir. 1984)) and (2) the combination of the cited references must actually teach or suggest the claimed invention. Further, that which is within the capabilities of one skilled in the art is not synonymous with that which is obvious. *Ex parte Gerlach*, 212 USPQ 471 (Bd. APP. 1980). Obviousness is tested by "what the combined teachings of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981), but it cannot be established by combining the teachings of the prior art to produce the claimed subject matter, absent some teaching or suggestion supporting the combination (*ACS Hosp. Systems, Inc. v Montefiore Hosp.* 732 F.2d 1572, 1577, 221 USPQ 329, 933 (Fed. Cir. 1984)). "To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim

to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher" *W.L. Gore & Associates, Inc. v. Garlock Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983).

THE CLAIMS

Claim 1 is directed to a compound of formula (I) – (VIII) where R¹ is selected from among hydrogen, F, Cl, Br, I, NO₂, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; R² is selected from among F, Cl, Br, I, CF₃, CHF₂, CH₂F, CF₂Cl, CN, CF₂OR¹², CH₂OR, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, substituted C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl and C₂-C₈ alkynyl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted; R³ through R⁸ each independently is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted; or R³ and R⁵ taken together form a bond; or R⁵ and R⁷ taken together form a bond; or R⁴ and R⁶ taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted; or R⁶ and R⁸ taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted; R⁹ and R¹⁰ each independently is selected from among hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2m}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted; R¹¹ is selected from among F, Br, Cl, I, CN, OR¹⁴, NR¹⁴R¹³, and SR¹⁴; R¹² and R¹³ each independently is selected from the group of hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted; R¹⁴ is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted; R¹⁵ and R¹⁶ each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; W is O or S; X is N{R¹⁴}; Y is selected from among O, S, N{R¹²} and NO{R¹²}; Z is N{R¹²}; n is 0; and m is 0 or 1; or a

pharmaceutically acceptable salt thereof. Claims 2, 4-11, 14-19 and 21-39 ultimately depend from claim 1 and are directed to various embodiments thereof.

Claim 42 is directed to a pharmaceutical composition including a pharmaceutically acceptable carrier and a compound of formula (I)-(VIII), where R¹ is selected from among hydrogen, F, Cl, Br, I, NO₂, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; R² is selected from among F, Cl, Br, I, CF₃, CHF₂, CH₂F, CF₂Cl, CN, CF₂OR¹², CH₂OR¹², OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, substituted C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl and C₂-C₈ alkynyl, wherein the haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted; R³ through R⁸ each independently is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted; or R³ and R⁵ taken together form a bond; or R⁵ and R⁷ taken together form a bond; or R⁴ and R⁶ taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted; or R⁶ and R⁸ taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted; R⁹ and R¹⁰ each independently is selected from among hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2m}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted; R¹¹ is selected from among hydrogen, F, Br, Cl, I, CN, OR¹⁴, NR¹⁴R¹³ and SR¹⁴; R¹² and R¹³ each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted; R¹⁴ is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted; R¹⁵ and R¹⁶ each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; W is O or S; X is N{R¹⁴};

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Filed : February 22, 2002

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PRELIMINARY AMENDMENT AND RCE

Y is selected from among O, S, N{R¹²} and N{OR¹²}; Z is N{R¹²}; n is 0; and m is 0 or 1; or a pharmaceutically acceptable salt thereof. Claims 43-51 and 53-62 ultimately depend from claim 42 and are directed to various embodiments thereof.

THE TEACHINGS OF THE CITED ART

Adams *et al.*

Adams *et al.* teaches various pyrroloquinolines as ligands selective for 5-HT_{2B} and/or 5-HT_{2C} receptors for use the treatment of obesity (see page 3 and Examples 3 and 4).

ANALYSIS

Applicant respectfully submits that none of pending claims 1-11, 14-19, 21-38, 42-51 and 53-62 encompass compounds where R² is hydrogen. The Examiner states in the Advisory Action, mailed July 6, 2004, that the deletion of hydrogen as a selection for R² sets a demarcation from the example compound of Adams *et al.* Applicant agrees with the Examiner that the reference does not teach or suggest or provide any motivation to modify the example taught by Adams *et al.* via multiple changes to arrive at the compounds as instantly claimed. Thus, applicant respectfully requests withdrawal of the rejection under 35 U.S.C. §103.

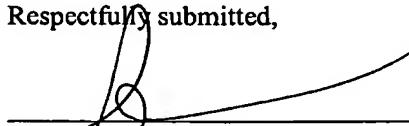
Objection to Claims 40 and 41

The Examiner objects to claims 40 and 41 as allowable subject matter depending from a rejected base claim. Applicant respectfully submits that claim 1 (the base claim) is in condition for allowance. Thus, applicants respectfully request that the objection to claims 40 and 41 be withdrawn.

* * *

In view of the above, examination of the application on the merits and allowance is respectfully requested.

Respectfully submitted,



Stephanie Seidman
Reg. No. 33,779

Attorney Docket No. 18202-017001 (1081)

Address all correspondence to:

Stephanie Seidman
Fish & Richardson P.C.
12390 El Camino Real
San Diego, California 92130
Telephone: (858) 678-5070
Facsimile: (202) 626-7796
email: seidman@fr.com



Attorney's Docket No.: 18202-017001 / 1081

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Lin Zhi *et al.*
Serial No. : 10/080,926
Confirmation No.: 7786
Filed : February 22, 2002
Title : TRICYCLIC ANDROGEN RECEPTOR MODULATOR COMPOUNDS
AND METHODS

Art Unit : 1625
Examiner : Evelyn Huang
Customer No.: 20985

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT & RESPONSE

Dear Sir:

Responsive to the Office Action, mailed April 15, 2005, entry of the following amendments and consideration of the following remarks are respectfully requested.

Amendments to the specification begin on page 2 of this paper.

Amendments to the claims are reflected in the listing of the claims which begin on page 3 of this paper.

Remarks/Arguments begin on page 25 of this paper.

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I hereby certify that this paper is being deposited with the United States Postal "Express Mail Post Office to Addressee" Service under 37 CFR §1.10 on the date indicated above and is addressed to: Mail Stop Amendment, Commissioner for Patents, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450.

Stephanie Seidman

AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph on page 37, lines 3-11 as follows:

Scheme II describes the synthesis of angular and linear indole/indoline analogues of structures 13-17. Treatment of 6-amino-2-quinolinones of structure 8 with NaNO₂ in strongly acidic conditions such as concentrated HCl generates hydroazines hydrazines of structure 9. Reaction of compound of structure 9 with a ketone such as structure 10 in acidic conditions affords a mixture of pyrroloquinolinones of structures 11 and 12, which can be separated by chromatography. Reductive alkylation of the indole nitrogen atom in structure 11 or 12 with an acid or aldehyde in the presence of a reducing agent such as NaBH₄ results in the formation of the reduced and alkylated products of structure 13 or 14. Oxidation of structure 13 or 14 provides analogues of structure 15, 16 or 17.

Please amend the paragraph on page 39, lines 1-5 as follows:

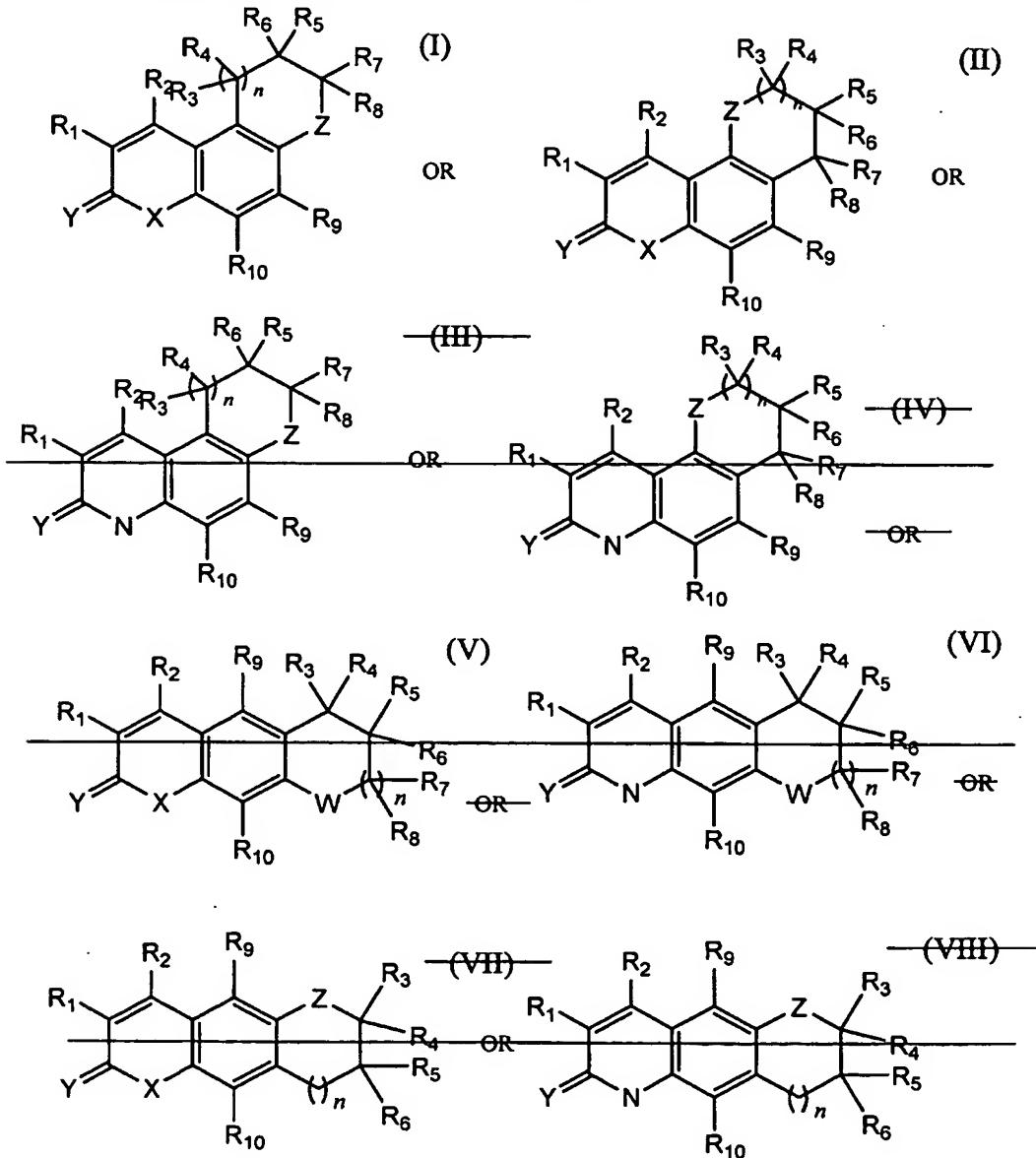
Scheme IV describes the preparation of tricyclic compounds of structure 26 by Fischer indole synthesis. Treatment of the 5-aminoquinolinone of structure 24 with NaNO₂ in acidic conditions provides the hydroazine hydrazine intermediates of structure 25. Condensation of the hydroazine hydrazine (structure 25) and a ketone of structure 10 followed by acid catalyzed cyclization afford compounds of structure 26.

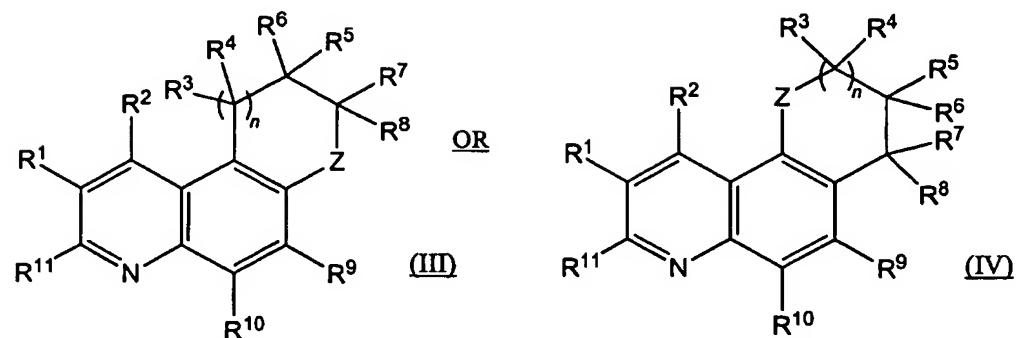
AMENDMENTS TO THE CLAIMS:

Claims 1-17, 23-26, 30-52, 55, 57-63, 98 and 100-107 are pending. Claim 99 is cancelled herein without prejudice or disclaimer. Claims 1, 6, 9, 30, 34-37, 40-42, 46, 57, 59-61, 98, 105 and 107 are amended herein. This listing of claims will replace all prior versions, and listings of claims, in the application.

LISTING OF CLAIMS:

1. (Currently amended) A compound of the formula:





wherein:

R¹ is selected from among hydrogen, F, Cl, Br, I, NO₂, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹², substituted C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the haloalkyl and heteroalkyl groups are optionally substituted;

R² is selected from among F, Cl, Br, I, CF₃, CHF₂, CH₂F, CF₂Cl, CN, CF₂OR¹², CH₂OR, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, substituted C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl and C₂-C₈ alkynyl, wherein the haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted;

R³ through R⁸ each independently is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R³ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁴ is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R⁵ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁶ is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R⁷ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁸ is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted; or

R³ and R⁵ taken together form a bond; or

R⁵ and R⁷ taken together form a bond; or

R⁴ and R⁶ taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted; or

R⁶ and R⁸ taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted;

R⁹ and R¹⁰ each independently is selected from among hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2m}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

R¹¹ is selected from among F, Br, Cl, I, CN, OR¹⁴, NR¹⁴R¹³, and SR¹⁴;

R¹² and R¹³ each independently is selected from the group of hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

R¹⁴ is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

R¹⁵ and R¹⁶ each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

W is O or S;

X is N{R¹⁴};

Y is selected from among O, S, N{R¹²} and NO{R¹²};

Z is N{R¹²};

n is 0; and
m is 0 or 1;
or a pharmaceutically acceptable salt thereof.

2. (Previously presented) A compound according to claim 1, wherein R² is selected from among F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, substituted C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the haloalkyl and heteroalkyl groups are optionally substituted.

3. (Original) A compound according to claim 1, wherein R² is selected from among CF₂OR¹², CH₂OR¹², OR¹², SR¹², SOR¹², SO₂R¹² and NR¹²R¹³.

4. (Previously presented) A compound according to claim 1, wherein R² is selected from among F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, substituted C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ heteroalkyl, C₂-C₄ alkenyl and C₂-C₄ alkynyl, wherein the haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted.

5. (Previously presented) A compound according to claim 4, wherein R² is selected from among F, Cl, CF₃, CF₂Cl, CF₂H, CFH₂ and substituted C₁-C₄ alkyl.

6. (Currently amended) A compound according to claim 1, wherein R⁹ and R¹⁰ each independently is selected from among hydrogen, F, Cl, Br, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

7. (Previously presented) A compound according to claim 6, wherein R⁹ and R¹⁰ each independently is selected from among hydrogen, F, Cl, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

8. (Previously presented) A compound according to claim 7, wherein R⁹ and R¹⁰ each independently is selected from among hydrogen, F and CH₃.

9. (Currently amended) A compound according to claim 1, wherein R¹ is selected from among hydrogen, F, Cl, Br, I, substituted C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

10. (Previously presented) A compound according to claim 9, wherein R¹¹ is selected from among hydrogen, F, Cl, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

11. (Original) A compound according to claim 9, wherein R¹ is hydrogen or F.

12. (Previously presented) A compound according to claim 1, wherein Y is O or S.
13. (Original) A compound according to claim 12, wherein Y is O.
14. (Previously presented) A compound according to claim 1, wherein R¹¹ is selected from among F, Cl, CN, OR¹⁴, NR¹⁴R¹³ and SR¹⁴.
15. (Previously presented) A compound according to claim 14, wherein R¹¹ is selected from among F, Cl, OR¹⁴, SR¹⁴ and NR¹⁴R¹³.
16. (Previously presented) A compound according to claim 15, wherein R¹¹ is selected from among F, Cl, OR¹⁴ and SR¹⁴.
17. (Original) A compound according to claim 16, wherein R¹¹ is OR¹⁴.
- 18-22. (Cancelled)
23. (Previously presented) A compound according to claim 1, wherein R¹² is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted.
24. (Previously presented) A compound according to claim 23, wherein R¹² is selected from among hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.
25. (Previously presented) A compound according to claim 1, wherein R¹³ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted.
26. (Previously presented) A compound according to claim 25, wherein R¹³ is selected from among hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.
- 27-29. (Cancelled)
30. (Currently amended) A compound according to claim 1, wherein:
R³ and R⁴ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

R³ and R⁵ taken together form a bond; or

R⁴ and R⁶ taken together form a four to six membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring are optionally substituted.

31. (Previously presented) A compound according to claim 30, wherein R³ and R⁴ each independently is selected from among hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

32. (Previously presented) A compound according to claim 1, wherein:

R⁵ and R⁷ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

R⁵ and R⁷ taken together form a bond.

33. (Previously presented) A compound according to claim 32, wherein R⁵ and R⁷ each independently is selected from among hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

34. (Currently amended) A compound according to claim 1, wherein:

R⁶ and R⁸ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted; or

R⁶ and R⁸ taken together form a three to eight membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted.

35. (Currently amended) A compound according to claim 34, wherein:

R⁶ and R⁸ each independently is selected from among hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ heteroalkyl, heteroaryl and aryl, wherein alkyl, haloalkyl, heteroaryl and aryl are optionally substituted; or

R⁶ and R⁸ taken together form a four to six membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted.

36. (Currently amended) A compound according to claim 1, wherein:

R¹ is selected from among hydrogen, F, Cl, Br, I, substituted C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R² is selected from among F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, substituted C₁-C₆ alkyl; C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein haloalkyl and heteroalkyl groups are optionally substituted; and

R³ and R⁴ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

37. (Currently amended) A compound according to claim 36, wherein:

R⁵ through R⁸ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

R⁶ and R⁸ taken together form a four to six membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring are optionally substituted.

38. (Previously presented) A compound according to claim 37, wherein:

R⁹ and R¹⁰ each independently is selected from among hydrogen, F, Cl, Br, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R¹² is selected from among hydrogen, C₁-C₆ alkyl C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted; and

R¹⁴ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

39. (Previously presented) A compound according to claim 38, wherein Y is O or S.

40. (Currently amended) A compound according to claim 1, wherein said compound is selected from among:

6-Methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Isopropyl-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Allyl-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(4-Methoxyphenyl)-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(3-Trifluoromethylphenyl)-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

4-Trifluoromethyl-5,6,7,8-tetrahydrocyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
4-Trifluoromethyl-5,6,7,8,9,10-hexahydrocycloheptano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano[g]pyrrolo-[3,2-f]quinolin-2(1H)-one;
(\pm)-6,6a,7,8,9,9a(*cis*) Hexahydro-6-trifluoroethyl-4-trifluoromethylecyclopentano[i]pyrrole-[2,3-g]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-ethyl-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-f]-quinolin-2(1H)-one;
(\pm)-6,6a,7,8,9,9a(*cis*) Hexahydro-6-ethyl-4-trifluoromethylecyclopentano [i]pyrrole[2,3-g]-quinolin-2(1H)-one;
(\pm)-5,6-Dihydro-5,6-*cis*-dimethyl-7-trifluoroethyl (2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-7,8-Dihydro-7,8-*cis*-dimethyl-6-trifluoroethyl-4-trifluoromethyl-6H-pyrrole[2,3-g]-quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-propyl-4-trifluoromethylcyclopentano-[g]pyrrolo-[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(3-furanylmethyl)-4-trifluoromethylcyclopentano[g]-pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(3-thiophenemethyl)-4-trifluoromethylcyclopentano[g]-pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2-methylpropyl)-4-trifluoromethylcyclopentano[g]-pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-chlorodifluoro-ethyl)-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-cyclopropylmethyl-4-trifluoromethylcyclopentano[g]-pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2-dimethoxyethyl)-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,8,8a(*cis*)-Hexahydro-9-(2,2,2-trifluoroethyl)-4-trifluoromethyl-9H-cyclohexano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,8,9,9a(*cis*),10-Octahydro-10-(2,2,2-trifluoroethyl)-4-trifluoromethylcycloheptano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(\pm)-5,6-cis-Dihydro-6-ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(\pm)-5,6-cis-Dihydro-5-butyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(\pm)-5,6-cis-Dihydro-5-(4-nitrophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(\pm)-5,6-cis-Dihydro-5-(4-dimethylaminophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(\pm)-5,6-cis-Dihydro-5-(4-methoxyphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(\pm)-5,6-cis-Dihydro-5-(3-trifluoromethylphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(\pm)-5,6-cis-Dihydro-5-(4-fluorophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(\pm)-5,6-Dihydro-5-phenyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(\pm)-5,6-cis-Dihydro-5-(4-methoxyphenyl)-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(\pm)-5,6-cis-Dihydro-5-(4-methoxyphenyl)-6-methyl-7-(2,2-dimethoxyethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(\pm)-5,6-cis-Dihydro-5-isopropyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(\pm)-5,6-Dihydro-5-ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(\pm)-5,6-Dihydro-5-ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

(\pm)-5,6-Dihydro-5-(2-ethoxycarbonylethyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

5,6-Dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

6-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

6-Ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

5-Ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

5-Ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)one;

5,6,7,8-Tetrahydro-8-~~trifluoroethyl~~ (2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano[*g*]-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;

8-Trifluoroethyl-4-trifluoromethyl-6,8-dihydrocyclopentano[*g*]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

9-Trifluoroethyl-4-trifluoromethyl-9*H*-benzo[*g*]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

6-Trifluoroethyl-4-trifluoromethyl-6,7,8,9-tetrahydropyrano[*i*]-pyrrolo[2,3-*g*]-quinolin-2(1*H*)-one;

5-(3-Trifluoromethylphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

5-(4-Fluorophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;

5-(2-Ethoxycarbonylethyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

7-Ethyl-8-methyl-6-(2,2,2-trifluoroethyl)-4-trifluoromethyl-6*H*-pyrrolo[2,3-*g*]quinolin-2(1*H*)-one;

5-Hydroxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;

5-Methyl-6-(1-hydroxyethyl)-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;

5-Methyl-6-acetyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

5-Formyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

5-Acetoxyethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;

2-Acetoxy-5-hydroxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinoline;

6-Ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

5-Ethoxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
(+)-6-(1-Methoxyethyl)-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
7-Allyl-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;
6-Ethyl-7-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;
7-(3-Trifluoromethylphenyl)-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;
7-(2-Hydroxyethyl)-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;
(+)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl (2,2,2-trifluoroethyl)-4-trifluoromethyl-cyclopentano-[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(-)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl (2,2,2-trifluoroethyl)-4-trifluoromethyl-cyclopentano-[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-6-hydroxymethyl-4-trifluoromethylpyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-7-ethyl-6-hydroxymethyl-4-trifluoromethylpyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
7,8-Dihydro-6-(2,2,2-trifluoroethyl) 4-trifluoromethylpyrrolo[2,3-*g*]quinolin-2(1*H*)-one;
6-(2,2,2-Trifluoroethyl) 4-trifluoromethylpyrrolo[2,3-*g*]quinolin-2(1*H*)-one;
8-Chloro-6-(2,2,2-trifluoroethyl) 4-trifluoromethylpyrrolo[2,3-*g*]quinolin-2(1*H*)-one;
5-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethylpyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Formyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one; and
5,6-Dimethyl-7-(2,2-difluorovinyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one.

41. (Currently amended) A compound according to claim 1, wherein said compound is selected from the group consisting of:

(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl (2,2,2-trifluoroethyl)-4-trifluoromethyl-cyclopentano-[g]pyrrolo-[3,2-*f*]quinolin-2(1*H*)-one;
(±)-6,6a,7,8,9,9a(*eis*) Hexahydro-6-trifluoroethyl 4-trifluoromethylcyclopentano[*f*]pyrrolo-[2,3-*g*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-ethyl-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5,6-*cis*-dimethyl-7-trifluoroethyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;

(\pm)-7,8-Dihydro-7,8-*cis*-dimethyl-6-trifluoroethyl-4-trifluoromethyl-6*H*-pyrrolo[2,3-*g*]-quinolin-2(1*H*)-one;
(\pm)-4*c*,5,6,7,7*a*(*cis*),8-Hexahydro-8-propyl-4-trifluoromethylcyclopentano-[*g*]pyrrolo-[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-4*c*,5,6,7,7*a*(*cis*),8-Hexahydro-8-(2,2,2-chlorodifluoroethyl)-4-trifluoromethylcyclopentano-[*g*]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-4*c*,5,6,7,7*a*(*cis*),8-Hexahydro-8-cyclopropylmethyl-4-trifluoromethyl-cyclopentano[*g*]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-4*c*,5,6,7,8,8*a*(*cis*)-Hexahydro-9-(2,2,2-trifluoroethyl)-4-trifluoromethyl-9*H*-cyclohexano[*g*]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6-*cis*-Dihydro-6-ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6-*cis*-Dihydro-5-butyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6-Dihydro-5-ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6-Dihydro-5-ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6-*cis*-Dihydro-5-methyl-6-ethyl-7-(2,2,2-trifluoroethyl)-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
5,6-Dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5,6,7,8-Tetrahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano[*g*]pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
6-Trifluoroethyl-4-trifluoromethyl-6,7,8,9-tetrahydronaphthalene[*i*]pyrrolo[2,3-*g*]-quinolin-2(1*H*)-one;
7-Ethyl-8-methyl-6-(2,2,2-trifluoroethyl)-4-trifluoromethyl-6*H*-pyrrolo[2,3-*g*]quinolin-2(1*H*)-one;
6-Ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

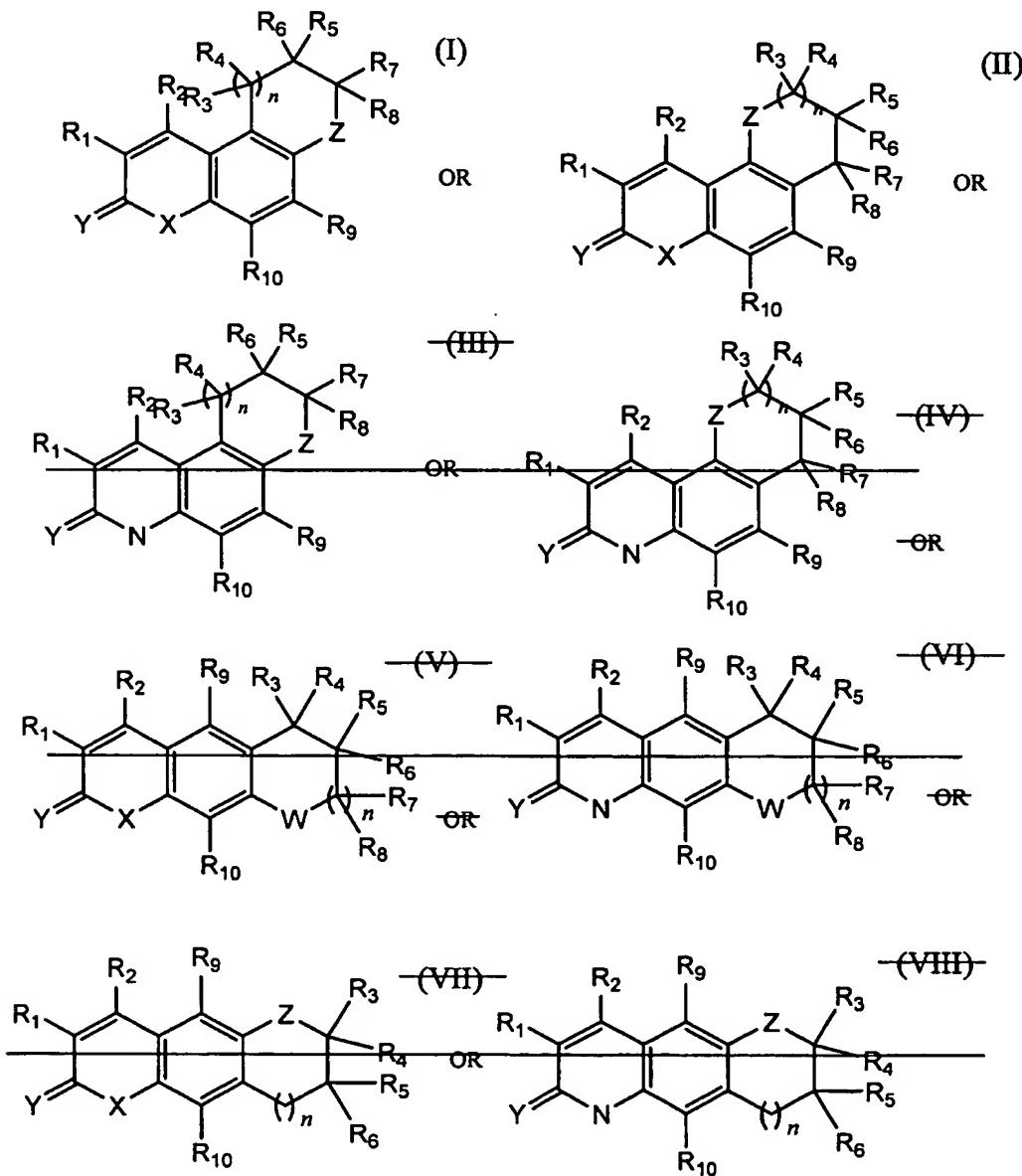
(+)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl (2,2,2-trifluoroethyl)-4-trifluoromethyl-cyclopentano-[g]-pyrrolo[3,2-f]quinolin-2(1*H*)-one; and

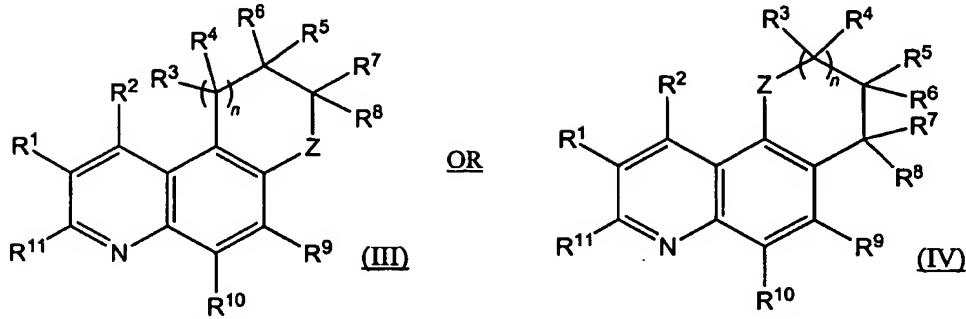
(-)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl (2,2,2-trifluoroethyl)-4-trifluoromethyl-cyclopentano-[g]pyrrolo[3,2-f]quinolin-2(1*H*)-one.

42. (Currently amended) A pharmaceutical composition, comprising:

a pharmaceutically acceptable carrier; and

a compound of formula:





wherein:

R¹ is selected from among hydrogen, F, Cl, Br, I, NO₂, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R² is selected from among F, Cl, Br, I, CF₃, CHF₂, CH₂F, CF₂Cl, CN, CF₂OR¹², CH₂OR¹², OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, substituted C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl and C₂-C₈ alkynyl, wherein the haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted;

~~R³ through R⁸ each independently is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;~~

R³ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁴ is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R⁵ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁶ is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R⁷ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁸ is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted; or

R³ and R⁵ taken together form a bond; or

R⁵ and R⁷ taken together form a bond; or

R⁴ and R⁶ taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted; or

R⁶ and R⁸ taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted;

R⁹ and R¹⁰ each independently is selected from among hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2m}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

R¹¹ is selected from among hydrogen, F, Br, Cl, I, CN, OR¹⁴, NR¹⁴R¹³ and SR¹⁴;

R¹² and R¹³ each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

R¹⁴ is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

R¹⁵ and R¹⁶ each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

W is O or S;

X is N{R¹⁴};

Y is selected from among O, S, N{R¹²} and N{OR¹²};

Z is N{R¹²};

n is 0; and
m is 0 or 1;
or a pharmaceutically acceptable salt thereof.

43. (Original) A pharmaceutical composition according to claim 42, wherein the carrier is suitable for enteral, parenteral, suppository, or topical administration.

44. (Previously presented) A pharmaceutical composition according to claim 42, wherein R¹ is selected from among hydrogen, F, Cl, Br, I, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

45. (Previously presented) A pharmaceutical composition according to claim 44, wherein R¹ is selected from among hydrogen, F, Cl, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

46. (Currently amended) A pharmaceutical composition according to claim 42, wherein R² is selected from among ~~hydrogen~~, F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, substituted C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the haloalkyl and heteroalkyl groups are optionally substituted.

47. (Previously presented) A pharmaceutical composition according to claim 46, wherein R² is selected from among F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, substituted C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ heteroalkyl, wherein the haloalkyl and heteroalkyl groups are optionally substituted.

48. (Previously presented) A pharmaceutical composition according to claim 42, wherein R⁹ and R¹⁰ each independently is selected from among hydrogen, F, Cl, Br, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

49. (Previously presented) A pharmaceutical composition according to claim 48, wherein R⁹ and R¹⁰ each independently is selected from among hydrogen, F and CH₃.

50. (Previously presented) A pharmaceutical composition according to claim 42, wherein R¹¹ is selected from among F, Cl, CN, OR¹⁴, NR¹⁴R¹³ and SR¹⁴.

51. (Previously presented) A pharmaceutical composition according to claim 50, wherein R¹¹ is selected from among F, Cl, OR¹⁴, SR and NR¹⁴R¹³.

52. (Previously presented) A pharmaceutical composition according to claim 42, wherein Y is O or S.

Claims 53 and 54 (Cancelled)

55. (Previously presented) A pharmaceutical composition according to claim 42, wherein R¹² is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted.

56. (Cancelled)

57. (Currently amended) A pharmaceutical composition according to claim 42, wherein:

R³ and R⁴ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

R³ and R⁵ taken together form a bond; or

R⁴ and R⁶ taken together form a four to six membered carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted.

58. (Previously presented) A pharmaceutical composition according to claim 42, wherein:

R⁵ and R⁷ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

R⁵ and R⁷ taken together form a bond.

59. (Currently amended) A pharmaceutical composition according to claim 42, wherein:

R⁶ and R⁸ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted; or

R⁶ and R⁸ taken together form a three to eight membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted.

60. (Currently amended) A pharmaceutical composition according to claim 42, wherein:

R¹ is selected from among hydrogen, F, Cl, Br, I, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R² is selected from among hydrogen, F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, substituted C₁-C₆ alkyl; C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the haloalkyl and heteroalkyl groups are optionally substituted; and

R³ and R⁴ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

61. (Currently amended) A pharmaceutical composition according to claim 60, wherein: R⁵ through R⁸ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

R⁶ and R⁸ taken together form a four to six membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted.

62. (Previously presented) A pharmaceutical composition according to claim 61, wherein: R⁹ and R¹⁰ each independently is selected from among hydrogen, F, Cl, Br, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

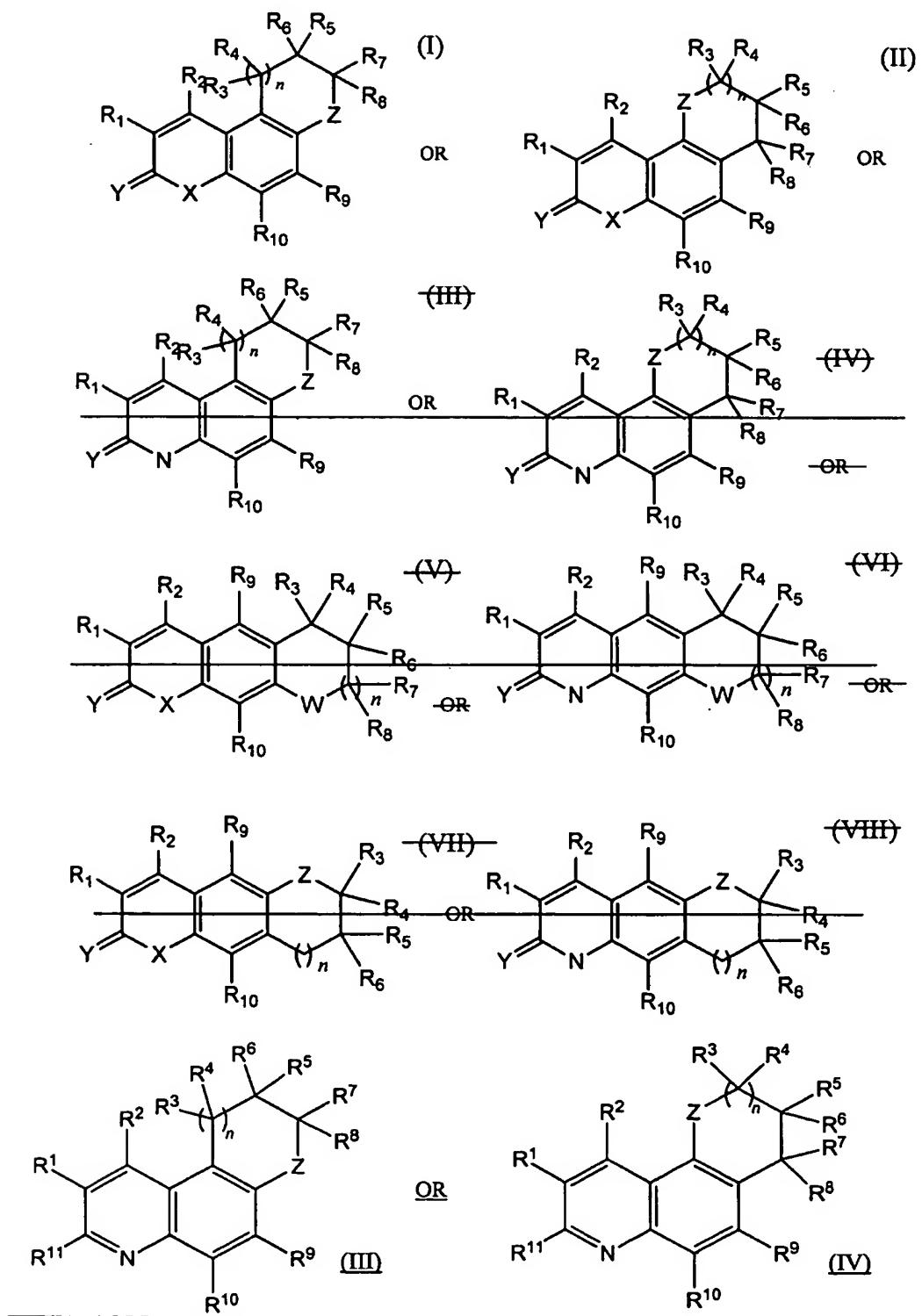
R¹² is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted; and

R¹⁴ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

63. (Previously presented) A pharmaceutical composition according to claim 62, wherein Y is O or S.

64-97. (Cancelled)

98. (Currently amended) A compound of formula:



wherein:

R¹ is selected from among hydrogen, F, Cl, Br, I, NO₂, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R² is selected from among F, Cl, Br, I, CF₃, CHF₂, CH₂F, CF₂Cl, CN, CF₂OR¹², CH₂OR, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, ~~substituted C₁-C₆ alkyl selected from among ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, tert-amyl, pentyl, hexyl, heptyl, octyl, C₁-C₈ C₆ haloalkyl, and C₁-C₈ C₆ heteroalkyl, C₂-C₈ alkenyl and C₂-C₈ alkynyl~~, wherein the alkyl, haloalkyl, and heteroalkyl, alkenyl and alkynyl groups are optionally substituted;

R³ through R⁸ each independently is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, C₁-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R³ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁴ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁵ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁶ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted;

R⁷ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁸ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted; or

R³ and R⁵ taken together form a bond; or

R⁵ and R⁷ taken together form a bond; or

R⁴ and R⁶ taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted; or

R⁶ and R⁸ taken together form a three- to eight-membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted;

R⁹ and R¹⁰ each independently is selected from among hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2m}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

R¹¹ is selected from among F, Br, Cl, I, CN, OR¹⁴, NR¹⁴R¹³, and SR¹⁴;

R¹² and R¹³ each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

R¹⁴ is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

R¹⁵ and R¹⁶ each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

W is O or S;

X is N{R¹⁴};

Y is selected from the group of O, S, N{R¹²} and NO{R¹²};

Z is N{R¹²};

n is 0; and

m is 0 or 1;

or a pharmaceutically acceptable salt thereof.

99. (Cancelled).

100. (Previously presented) A compound according to claim 98, wherein R¹ is selected from among hydrogen, F, Cl, Br, I, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

101. (Previously presented) A compound according to claim 98, wherein R⁹ and R¹⁰ each independently is selected from among hydrogen, F, Cl, Br, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

102. (Previously presented) A compound according to claim 98, wherein R¹¹ is selected from among F, Cl, CN, OR¹⁴, NR¹⁴R¹³ and SR¹⁴.

103. (Previously presented) A compound according to claim 98, wherein Y is O or S.

104. (Previously presented) A compound according to claim 98, wherein R¹² is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted.

105. (Currently amended) A compound according to claim 98, wherein:

R³ and R⁴ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

R³ and R⁵ taken together form a bond; or

R⁴ and R⁶ taken together form a four to six membered carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted.

106. (Previously presented) A compound according to claim 42, wherein:

R⁵ and R⁷ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

R⁵ and R⁷ taken together form a bond.

107. (Currently amended) A compound according to claim 42, wherein:

R⁶ and R⁸ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted; or

R⁶ and R⁸ taken together form a three to eight membered saturated or unsaturated carbocyclic or heterocyclic ring, wherein the carbocyclic or heterocyclic ring is optionally substituted.

REMARKS

A check for \$450 for a two-month extension of time accompanies this response. Any fees that may be due in connection with the filing of this paper or with this application may be charged to Deposit Account No. 06-1050. If a Petition for Extension of time is needed, this paper is to be considered such Petition.

The specification is amended herein to correct minor typographical errors. No new matter is added.

Claims 1-17, 23-26, 30-52, 55, 57-63, 98 and 100-107 are pending. Claim 99 is cancelled herein without prejudice or disclaimer. Claims 1, 6, 9, 30, 34-37, 40-42, 46, 57, 59-61, 98, 105 and 107 are amended herein. Claims 1, 42 and 98 are amended herein to correct an inadvertent typographical error in Formulae III and IV. Formulae III and IV are amended to replace the double-bonded Y substituent with a single-bonded R¹¹ substituent. Basis for the amendment is found throughout the specification (for example, see page 12, lines 1-5 and original claim 1). Claims 1, 42 and 98 also are amended to cancel Formulae V through VIII, which are non-elected subject matter. Applicant reserves the right to file divisional application(s) to the cancelled subject matter. Claims 1, 42 and 98 are further amended to more distinctly claim the subject matter by separating out the definitions for substituents R³ through R⁸. Basis for the amendment is found throughout the specification (e.g., see pages 16-24). Claims 1, 30, 34, 35, 37, 42, 57, 59, 61, 98 and 105 are amended to delete the embodiments where R⁴ and R⁶ or R⁶ and R⁸ taken together form a heterocyclic ring. Claim 6 is amended to correct a minor typographical error. Claims 9 and 36 are amended to more distinctly claim the subject matter to recite that the alkyl group is substituted.

Claims 40 and 41 are amended to delete non-elected subject matter. Applicant reserves the right to file divisional application(s) to the cancelled subject matter. Claims 40 and 41 also are amended to more distinctly claim the subject matter by replacing the recitation "trifluoroethyl" with the recitation "2,2,2-trifluoroethyl." Basis for the amendment is found throughout the specification (for example, see page 54, lines 19-20; page 56, lines 12-13; page 56, lines 20-22; and page 59, lines 23-25). Claims 46 and 60 are amended to more distinctly claim the subject matter by deleting the recitation "hydrogen."

No new matter is added.

THE REJECTION OF CLAIMS 9-11, 36-39, 46, 47, 60-63 AND 99 UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

Claims 9-11, 36-39, 46, 47, 60-63 and 99 are rejected as allegedly failing to particularly point out and distinctly claim the subject matter for which protection is being sought.

Claims 9 and 36

Claims 9 and 36 and claims dependent thereon are rejected because substituent R¹ recites “unsubstituted alkyl,” which allegedly has no antecedent basis in base claim 1.

Claims 9 and 36 are amended to conform the definition of substituent R¹ to the definition of R¹ recited in claim 1. Applicant respectfully submits that the rejection is rendered moot in light of the amendment of claims 9 and 36 herein, which deletes the recitation “unsubstituted alkyl” from the definition of substituent R¹ in claims 9 and 36.

Claims 46 and 60

Claims 46 and 60 and claims dependent thereon are rejected because substituent R² recites “hydrogen,” which allegedly has no antecedent basis in base claim 42. Claims 46 and 60 are amended to conform the definition of substituent R² to the definition for R² recited in claim 42. Applicant respectfully submits that the rejection is rendered moot in light of the amendment of claims 46 and 60 herein, which deletes the recitation “hydrogen” from the definition of substituent R² in claims 46 and 60.

Claim 99

Claim 99 is rejected because there allegedly is no basis for the recitation “carrier” in the base claim 98. Applicant respectfully submits that the rejection is rendered moot in light of the cancellation of claim 99 herein.

THE REJECTION OF CLAIMS 1-17, 23-26, 30-39, 42-52, 55, 57-63 AND 98-107 UNDER 35 U.S.C. § 112, FIRST PARAGRAPH

Claims 1-17, 23-26, 30-39, 42-52, 55, 57-63 and 98-107 are rejected as allegedly failing to comply with the written description requirement. The Examiner alleges that the claims include subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor at the time the application was filed has possession of the claimed subject matter. The Examiner provides several bases for rejection, which are discussed in turn below. This rejection is respectfully traversed.

RELEVANT LAW

The purpose behind the written description requirement is to ensure that the patent applicant had possession of the claimed subject matter at the time of filing of the application *In re Wertheim*, 541 F.2d 257, 262, 191 USPQ 90, 96 (CCPA 1976). The manner in which the specification meets the requirement is not material; it may be met by either an express or an implicit disclosure.

35 U.S.C. §112 requires a written description of the invention. This requirement is distinct from and not coterminous with the enablement requirement:

The purpose of the "written description" requirement is broader than to merely explain how to "make and use"; the applicant must also convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. The invention is, for purposes of the "written description" inquiry, whatever is now claimed." *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d at 1563-64, 19 USPQ2d at 1117.

The issue with respect to 35 U.S.C. §112, first paragraph, adequate written description has been stated as:

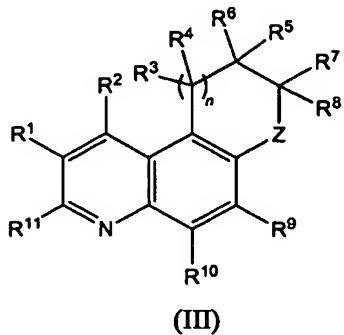
[d]oes the specification convey clearly to those skilled in the art, to whom it is addressed, in any way, the information that appellants invented that specific compound [claimed embodiment] *Vas-Cath, Inc. v. Mahurkar*, at 1115, quoting *In re Ruschig*, 390 F.2d 1990, at 995-996, 154 USPQ 118 at 123 (CCPA 1967).

A specification must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention, *i.e.*, whatever is now claimed. *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64, 19 USPQ.2d 1111, 1117 (Fed. Cir. 1991).

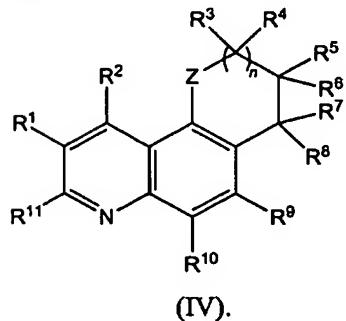
ANALYSIS

1. Formulae III and IV

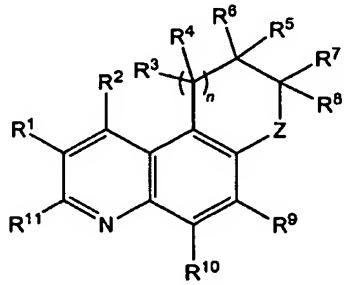
Claims 1 and 42 are rejected because it is alleged that Formulae III and IV are not described in the specification. Claims 1 and 42 are amended herein to replace the Y substituent with R¹¹ to correct the inadvertent typographical error introduced in Formulae III and IV. Basis for compounds of Formulae III and IV is found throughout the specification. For example, see page 12, lines 1-5, which sets forth Formulae III and IV as:



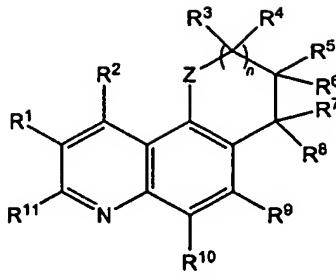
OR



In addition, original claim 1 sets forth Formulae III and IV as:



and



Thus, the specification provides basis for compounds of Formulae III and IV. Applicant respectfully requests reconsideration and withdrawal of the rejection.

2. "Substituted Alkyl"

Claims 1 and 42 are rejected because the specification allegedly fails to describe a compound where R¹ and/or R² is a "substituted alkyl." The applicant respectfully disagrees. The specification teaches that the alkyl group of substituents R¹ and R² may be optionally substituted. For example, see page 5, lines 2-8, which recites:

R¹ is selected from among hydrogen, F, Cl, Br, I, NO₂, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R² is selected from among F, Cl, Br, I, CF₃, CHF₂, CH₂F, CF₂Cl, CN, CF₂OR¹², CH₂OR¹², OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl and C₂-C₈ alkynyl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted; [emphasis added].

The specification states, on page 10, line 10, that “‘optionally substituted’ groups may be substituted or unsubstituted.” Thus, the recitation “optionally substituted” means “substituted or unsubstituted” throughout the specification. Hence, the specification discloses as a genus compounds with substituents, such as alkyl, haloalkyl and heteroalkyl groups, that are substituted or unsubstituted. For example, the definition for R¹ equivalently can be recited:

R¹ is selected from among hydrogen, F, Cl, Br, I, NO₂, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, substituted or unsubstituted C₁-C₈ alkyl, substituted or unsubstituted C₁-C₈ haloalkyl and substituted or unsubstituted C₁-C₈ heteroalkyl;

Therefore, the specification provides basis for the recitation “substituted alkyl” for the descriptions of substituents R¹ and R² in claims 1 and 42. Applicant respectfully requests that the rejection be reconsidered and withdrawn.

3. Claim 98

Claim 98 is rejected because the specification allegedly fails to describe a compound where R² is an alkyl selected from among ethyl, *n*-propyl, isopropyl, *n*-butyl, isobutyl, *sec*-butyl, *tert*-butyl, *tert*-amyl, pentyl, hexyl, heptyl and octyl. Without addressing the propriety of the rejection, in the interest of advancing the application to allowance, it is respectfully submitted that this rejection is rendered moot in light of the amendment of claim 98 herein.

THE REJECTION OF CLAIMS 1-17, 23-26, 30-39, 42-52, 55, 57-63 AND 98-107 UNDER 35 U.S.C. § 112, FIRST PARAGRAPH

Claims 1-17, 23-26, 30-39, 42-52, 55, 57-63 and 98-107 are rejected under 35 U.S.C. § 112, first paragraph, as allegedly being broader than the enabling disclosure because the specification allegedly does not enable a person skilled in the art to make and use compounds commensurate in scope with the claims. The Examiner alleges that the specification does not provide enablement for (a) compounds where R⁴ and R⁶ together or R⁶ and R⁸ together form a heterocyclic ring or (b) compounds where the adjacent R³-R⁸ substituents are all optionally substituted aryl or heteroaryl. This rejection is respectfully traversed.

RELEVANT LAW

The test of enablement is whether one skilled in the art can make and use what is claimed based upon the disclosure in the application and information known to those of skill in the art without undue experimentation. *United States v. Telecommunications, Inc.*, 8 USPQ2d 1217 (Fed. Cir. 1988). A certain amount of experimentation is permissible as long as it is not undue. A considerable amount of experimentation is permissible, particularly if it is routine experimentation. The amount of experimentation that is permissible depends upon a number of factors, which include: the quantity of experimentation necessary, the amount of direction or guidance presented, the presence or absence of working examples, the nature of the invention, the state of the prior art, the relative skill of those in the art, the predictability of the art, and the breadth of the claims. See, *Ex parte Forman*, 230 USPQ 546 (Bd. Pat. App. & Int'l 1986); see also *In re Wands*, 8 USPQ2d 1400 (Fed. Cir. 1988).

A patent application need not teach, and preferably omits, what is well known in the art. *Spectra-Physics, Inc. v. Coherent, Inc.*, 3 USPQ2d 1737 (Fed. Cir. 1987). Indeed, "not everything necessary to practice the invention need be disclosed. In fact, what is well-known is best omitted." *In re Buchner*, 929 F.2d 660, 661, 18 U.S.P.Q.2d 1331, 1332. Showing every combination of constituents is unnecessary. The law is clear that patent documents need not include subject matter that is known in the field of the invention and is in the prior art, for patents are written for persons experienced in the field of the invention. See *Vivid Technologies, Inc. v. American Science and Engineering, Inc.*, 200 F.3d 795, 804, 53 USPQ2d 1289, 1295 (Fed. Cir. 1999).

ANALYSIS

A. "Heterocyclic Ring"

Claims 1-17, 23-26, 30-39, 42-52, 55, 57-63 and 98-107 are rejected under 35 U.S.C. § 112, first paragraph, as allegedly being broader than the enabling disclosure because the specification allegedly does not provide enablement for compounds where R⁴ and R⁶ together or R⁶ and R⁸ together form a heterocyclic ring. Without conceding the propriety of the rejection, in the interest of advancing this application to allowance, it is respectfully submitted that this rejection is rendered moot by the amendment of claims 1, 30, 34, 35, 37, 42, 57, 59, 61, 98 and 105 to delete the embodiments where R⁴ and R⁶ or R⁶ and R⁸ taken together form a heterocyclic ring.

Applicant : Lin Zhi *et al.*
Serial No. : 10/080,926
Filed : February 22, 2002

Attorney's Docket No.: 18202-017001 / 1081
Amendment and Response

B. "Adjacent R³ through R⁸ Substituents"

Claims 1-17, 23-26, 30-39, 42-52, 55, 57-63 and 98-107 are rejected under 35 U.S.C. § 112, first paragraph, as allegedly being broader than the enabling disclosure because the specification allegedly does not provide enablement for compounds where the adjacent R³-R⁸ substituents are all optionally substituted aryl or heteroaryl. Applicant respectfully submits that as amended, the adjacent R³-R⁸ substituents of claims 1, 42 and 98 cannot all be optionally substituted aryl or heteroaryl. In pending claims 1, 42 and 98, none of R³, R⁵ nor R⁷ includes as an element in its description an optionally substituted aryl or heteroaryl. Thus, the rejection is rendered moot by the amendment of claims 1, 42 and 98 herein.

Objection to Claims 40 and 41

The Examiner objects to claims 40 and 41 as being allowable but depending from a rejected base claim. Applicant respectfully submits that claim 1 (the base claim) is in condition for allowance. Thus, applicants respectfully request that the objection to claims 40 and 41 be reconsidered and withdrawn.

* * *

In view of the above, reconsideration and allowance is respectfully requested.

Respectfully submitted,

Stephanie Seidman
Reg. No. 33,779

Attorney Docket No. 18202-017001 / 1081

Address all correspondence to:

Stephanie Seidman
Fish & Richardson P.C.
12390 El Camino Real
San Diego, California 92130
Telephone: (858) 678-5070
Facsimile: (202) 626-7796
email: seidman@fr.com